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Appoints Sub-Committee on Stream Pollution

Rex W. Hovey of the Oxford Paper Co. Is Chairman of Group Which Will Handle Stream Pollution Legislation for the American Paper and Pulp Association—All Industries That Discharge Effluents into Natural Water Courses Are Urged to Appear at Hearing—Cost to the Paper Industry, It Is Said, Would Be Prohibitive

The wholesale transfer of water pollution control to the Federal Government as proposed in several bills pending in Congress has led the American Paper and Pulp Association to appoint the following Sub-Committee on Stream Pollution Legislation of the Committee on Public Affairs to handle stream pollution legislation:

Rex W. Hovey, Chairman, Oxford Paper Company, 230 Park avenue, New York.

S. B. Copeland, Eastern Manufacturing Company, Bangor, Maine.

D. C. Everest, Marathon Paper Mills Company, Rothschild, Wis.

Geo. E. Williamson, Strathmore Paper Company, West Springfield, Mass.

A. C. Goodyear, Bogalusa Paper Company, 570 Lexington avenue, New York, N. Y.

P. H. Glatfelter, P. H. Glatfelter Company, Spring Grove, Pa.

J. D. Zellerbach, Crown-Zellerbach Corporation, 343 Sansome street, San Francisco, Cal.

David L. Luke, Jr., West Virginia Pulp and Paper Company, 230 Park avenue, New York, N. Y.

C. R. McMillen, St. Regis Paper Company, 230 Park avenue, New York, N. Y.

R. A. Hayward, Kalamazoo Vegetable Parchment Company, Parchment, Kalamazoo, Mich.

Sidney Frohman, Hinde & Dauch Paper Company, Sandusky, Ohio.

E. Victor Donaldson, Robert Gair Company, 155 E. 44th street, New York, N. Y.

Stuart Kay, International Paper Company, 220 E. 42nd street, New York, N. Y.

H. A. Rothschild, Kimberly-Clark Corporation, Neenah, Wis.

F. P. Klund, Hammermill Paper Company, Erie, Pa.

G. K. Spence, Castanea Paper Company, Johnsonburg, Pa.

A. L. Hobson, St. Croix Paper Company, Woodland, Maine.

H. C. Schaabe, Dill & Collins, Inc., Richmond and Tioga streets, Philadelphia, Pa.

Charles W. Boyce, executive secretary of the American Paper and Pulp Association has sent the following statement on this matter to members of the pulp and paper industry:

Stream Pollution Bills S. 3958—S. 3959

"Following the Wild-Life Conferences on February 3, 1936, in Washington, D. C., two additional bills (S. 3958—S. 3959) on stream pollution were introduced by Senator Lonergan of Connecticut.

"Among other things, these bills provided for the creation of a Federal Commission which not only is authorized to make rules and regulations in respect to stream pollution, but, also, is empowered to bring action in Federal Courts for violation of such rules and regulatons.

The bills were referred to the Senate Committee on Commerce. The American Paper and Pulp Association ascertained that an attempt was to be made to report these bills to the Senate without hearings. This was prevented. Subsequently, the Senate Committee on Commerce appointed a subcommittee consisting of Senator Caraway (Arkansas), Chairman, and Senators Guffey (Pennsylvania) and Gibson (Vermont).

"The proponents of this legislation appeared before this Committee on February 26. Subsequently, the subcommittee postponed continuation of the hearing for approximately two weeks to provide opportunity for the opponents to prepare for appearance.

"The Association has appointed a subcommittee to the Committee on Public Affairs to handle stream pollution legislation, of which Mr. R. W. Hovey, Oxford Paper Company, is Chairman. The committee membership is shown on the attached list. Arrangements have been made for appearance at the next session of hearing to present the industry's case, which is being prepared by the subcommittee. Except for interesting other industries in appearing before the subcommittee at the next hearing, action in respect to this legislation must be postponed until after the subcommittee has concluded its hearings.

"It is apparent from the testimoney given on February 26, that a determined drive is being made by recreational and other interests, to supplant State jurisdiction in these matters by Federal legislation, on the grounds that more uniform, positive action will be taken by the Federal Government, and that despite reports of the Natural Resources

(Continued on page 44)

Sale of Great Lakes Paper Assets Appealed

Western Investments, Ltd., Claim Justice McEvoy Erred in Opposing Aldrich-Gefael Deal—Court Expected to Rule on Whether Sale Accords With Judicative Amendment Act and Whether Deal is Acceptable to Enforce Upon Holders of All Bonds

[FROM OUR REGULAR CORRESPONDENT]

TORONTO, Ont., March 1, 1936—Appeal of Western Investments, Ltd., against court approval of sale of assets of Great Lakes Paper Company, was heard in Osgoode Hall last week. Judgment may not be given for some time. D. L. McCarthy, K. C., for the appellant, claimed that Justic McEvoy erred in approving the Aldrich-Gefael deal which had been adopted by 46 per cent of the outstanding bonds. It was claimed that the deal was not really a sale upon which the court could rule, but was in the nature of a reorganization. National Trust Company, as receiver and manager for Great Lakes Paper Company, stated that the deal was a sale, transfer or exchange as required under the law. The Trust company also stated that the receiver made every effort to communicate offers to bondholders, and it was asked that the court only consider the vote of the bondholders' meeting. Main points on which the court is expected to rule are: I—Whether the Great Lakes deal is a sale in accordance with the Judicature Amendment Act, and II—whether the Aldrich-Gefael deal, approved by less than 50 per cent of total bonds, is acceptable to enforce upon holders of all bonds.

Canadian Pulp Does Not Figure

The Turgeon commission to investigate the rayon textile industry in Canada is completing its organization at Ottawa in preparation for public hearings. Many misconceptions regarding Japanese competition are bound to be corrected and new facts concerning this threat to Canadian production unearthed. A misconception widely believed is that Japan buys the raw material (pulpwood) from Canada, manufactures it and ships the finished product back to this country. This is a phase of the rayon question which has greatly puzzled the public, who cannot understand why there should be such divergence of price on the finished product between two industries based on a single source of raw material supply. The fact is that Japan draws very little raw material from Canada. In the first ten months of 1935 Canada contributed 6¼ per cent of Japan's imports of pulpwood. The bulk came from United States and Scandinavian countries.

Provincial Paper's Earnings Up

The financial statement of Provincial Paper, Ltd., for the year ended December 31, 1935, shows net profit equivalent of $211,727, and provision of $100,000 for common stock outstanding, after preferred dividends, against $1.12 per share in 1934. Earnings before depreciation and interest were $688,617 in 1935 as against $670,614 in 1934. After interest charges of $211,727 and provision of $100,000 for depreciation, net profits of $376,890 remained, against $357,779 in the previous year. Preferred dividends totalled $245,000, the same as in 1934, while $1 per share was disbursed on the common stock, against none in 1934. As at December 31, 1935, current assets were $2,611,296, and current liabilities $359,437 a net of $2,251,859 representing an improvement, compared with the previous year of $52,183. The report shows that not only were total current assets over seven times total current liabilities, but cash alone was $309,117 and Provincial and Dominion Government bonds held a market value in excess of $654,000.

Paper Box Men to Meet In Convention

At a meeting of the Toronto Carton Council and the executives of the Canadian Paper Box Manufacturers' Association held in Toronto it was decided to hold the annual convention this year at Bigwin Inn, Lake of Bays, on June 22 and 23. Several of the convention speakers have already been arranged for and a successful gathering of the box men is assured. Nearly 200 people were present at the dinner and business sessions of the Carton Council.

Notes and Jottings

For the first time in a number of years the Hydro-Electric Pulp Mill at Campbellford, Ont., is running full time, while demand for the company's product continues to increase.

A contract has been let by the General Refractory Products, Ltd., which is developing clay and silica deposits on the Mattagami River, for the cutting of timber for a processing plant, and ties for a railway extension. The work calls for 22,000 ties and 200,000 feet of timber. Officials expect that the seven-mile extension from the Spruce Falls Power and Paper Company railroad and the plant will be in operation by the end of August. The plant is being designed along lines similar to plants in Cornwall, England, where most of the world's supply of kaolin is at present being produced.

Unmanufactured timber, including pulpwood, logs, poles, Christmas trees and hewn railway ties from the Province of New Brunswick, proposed to be exported, is to be held for the production of a clearance certificate from the Department of Lands and Mines, New Brunswick, or from a duly authorized forest ranger, showing that such timber has not been cut on Crown Lands, or if cut on Crown Lands, that all dues have been paid, and that it is free to be exported.

James H. Morris, lumber and pulpwood dealer of Douglastown, N. B., is conducting operations on the St. John River and the logs will be sawn in his new mill at Haldimand. The pulpwood will be transported by motor trucks to Mai Bay to await water shipment.

Frederick H. Sheppard, production inspector of the Howard Smith Paper Mills at Cornwall, Ont., for the past fifteen years, died a few days ago, at the age of 70 years. He is survived by a son and two daughters.

Water Conditions Favorable at Holyoke

[FROM OUR REGULAR CORRESPONDENT]

HOLYOKE, Mass., March 3, 1936—While floods have wrought damage in some parts of the country this section has escaped and the heavy snows are passing off slowly, affording ample power at the paper mills and with no immediate prospect of flood conditions. In fact, the winter flow has been better than in most years and the slower runoff makes for continued steady power conditions.

Activities of the Wisconsin Paper Mills

Production of Wall Paper Greatly Increased at Atlas Plant of Kimberly-Clark Corp., Due to Introduction of New Designs and New Types—Paper for This Division Manufactured at Lakeview and Kimberly Mills—Paper Mills Oppose Time Change

[FROM OUR REGULAR CORRESPONDENT]

APPLETON, Wis., March 2, 1936—New designs and new types of wall paper introduced by the Kimberly-Clark Corporation have greatly increased production at its Atlas mill at Appleton, Wis. This is especially true of its borders in colors featuring Mickey and Minnie Mouse, famous cartoon characters. These are produced under a royalty arrangement with Walt Disney Enterprises, from designs furnished by Disney.

Intended for use in the nursery, the borders have found use in other rooms of homes and in stores and theaters. Production was started in August, and the demand has outstripped other borders 20 to 1, out of the fifteen other types manufactured. The demand now is approximately 40,000 rolls a month. Colors are waterproof and sun-tested, and the paper can be washed to remove children's fingermarks.

Another popular product on which production has now reached 100,000 rolls a month is a streamline paper patented by the company last July. The paper is applied horizontally to the walls instead of the customary vertical strips.

Paper for the wall paper division is manufactured at the company's Lakeview (Neenah, Wis.) and Kimberly, Wis., mills. It is printed at the Atlas mill. Distribution is carried on through United Wallpaper Factories, Inc.

Directors of the Kimberly-Clark Corporation, meeting last week, declared the regular quarterly dividend of 1½ per cent on the preferred stock, and 12½ cents a share on the common stock, payable as of April 1.

Paper Mills Oppose Time Change

With Eastern time becoming effective in Chicago March 1, and effort being made to extend the Eastern time zone for railroads through Michigan and Indiana, the paper mills of Wisconsin have registered opposition to the move.

At a hearing held in Chicago last week before Clyde B. Aitchison of the Interstate Commerce Commission, the situation was pointed out by J. E. Bryan, traffic manager of the Wisconsin Paper and Pulp Manufacturers Traffic Association. He said the time change would place the paper industry under a severe handicap and probably result in the loss of its large Chicago market.

Mr. Bryan said the paper business is handled largely on an overnight basis, and if trains were set an hour ahead, mills closer to Chicago, in Michigan, for example, could truck their products into Chicago 150 miles overnight, whereas Wisconsin mills, some 430 miles away, are forced to rely on train schedules. In some cases advanced time would mean a loss of 24 hours in connections to Chicago and the east, bringing loss of business not only to the paper makers but to Wisconsin railroads as well. The change would also effect mail deliveries which bring their orders, he said.

The mills were supported in their arguments by A. R. McDonald, of the Wisconsin Public Service Commission, who said Wisconsin industries would be inconvenienced if Chicago makes the time shift. The state is unalterably opposed, he declared, and added that Chicago should adjust itself to the rest of the United States.

News of the Industry

A patent was granted last week by the United States Patent Office to Ronald I. Drake, Appleton, Wis., and Anton M. Meier, Menasha, Wis., for an improved type of paper container for ice cream manufacturers. It will be used for shipments of small amounts of ice cream. It has a cover which is equipped with extending tongue portions which fold down against the body of the container. They keep the contents from spilling. Application for the patent was made in February, 1933, and was finally approved as to two features of originality and improvement. Commercial rights have been assigned to the Menasha Products division of the Marahton Paper Mills Company.

Efforts of Wisconsin congressmen to obtain an appropriation of one million dollars for the United States Forest Products Laboratory at Madison, Wis., were defeated by the appropriations committee when it recommended only $499,022. This is $9,000 less than last year's appropriation. Senator Robert M. LaFollette will carry on the fight for a larger sum, and announces he will offer an amendment to that effect when the measure comes up in the Senate. The larger sum is desired so as to expand research in new uses for wood.

A hearing will be conducted March 10 at Madison, Wis., by the Wisconsin Public Service Commission on rates charged by the Chicago and North Western and other railroads in Wisconsin on pulpwood and other paper mill commodities. The mills are attempting to obtain more consistent and equitable rates so as to remove present disparities.

Steel work for the $75,000 addition to the Institute of Paper Chemistry, Appleton, Wis., has been completed. Erection of the Lannon stone walls has been started. Work has been delayed by weather conditions, but a crew of twenty men is now maintained.

Election of R. J. Cullen, president of the International Paper Company, to the board of trustees of the Institute of Paper Chemistry, Appleton, Wis., was confirmed at a meeting of the board in New York. J. D. Zellerbach, executive vice-president of Crown-Zellerbach Corporation, was also elected a member of the board.

An amendment to the articles of incorporation of the Little Rapids Pulp Company, Little Rapids, Wis., has been filed with the secretary of state. It provides for a reduction of the board of directors from seven to five. The amendment was signed by K. S. Dickinson, president, and Heber H. Pelkey, secretary.

Romeo Colburn, electrical engineer for the Appleton Coated Paper Company, Appleton, Wis., died last week. He was 45 years old. Mr. Colburn was taken ill about four months ago, and returned to his home at Chippewa Falls, Wis., where he passed away. Burial took place at Fond du Lac, Wis.

Samuel C. Warner Dead

HOLYOKE, Mass., March 3, 1936—Word was received in this city Saturday of the death of Samuel C. Warner, aged 82, of Ypsilanti, Mich., former well-known papermaker and foreman of the finishing department of the Riverside No. 2 paper mill. He leaves two sons, one, Christopher (Kit) Warner, in the paper business in New York City, and living in Westfield, N. J.

Newsprint Situation Improving In Canada

Future Prospects Considered Better Than at Any Time Since Beginning of Depression—Industry Now Operating At 80 Per Cent of Rated Capacity—Spread Between Consumption and Production of Newsprint Paper May Reach Equilibrium Within Short Time

[FROM OUR REGULAR CORRESPONDENT]

MONTREAL, Que., March 2, 1936—The outlook for the Canadian newsprint industry continues to be better than at any time since the beginning of the depression. While the industry is operating at about 80 per cent of rated capacity, the actual productive capacity is considered to be considerably below rated capacity. Consequently, the spread between consumption and production has narrowed to such an extent that it is probable that, within a short time, they will be in equilibrium. Opinion is that when this point is reached there should be no difficulty in advancing prices to a profitable level.

Returns just received from the Bureau of Statistics show that the total paper exports in January had a value of $6,908,769 as compared with $6,843,339 in January, 1935. Of this newsprint accounted for $6,326,653, that exported to the United States amounting to 3,166,670 cwt., valued at $5,429,055.

Wood pulp and screenings were exported to the amount of 1,089,502 cwt., at $2,094,090 compared with 931,938 at $2,069,461 in January, 1935. The chief purchaser was the United States with 859,082 cwt., followed by the United Kingdom with 145,479 cwt. There were 51,741 cords of pulpwood exported, all to the U. S.

Price Bros. Situation

The Bondholders Protective Committee of Price Brothers and Co., have accepted with minor modifications, the plan advanced for the purchase of the company's assets by the aluminum interests for approximately $20,000,000. Indications are, however, that other interests are busy, and that alternative proposals are in the making. There is also the question of the attitude of the preferred and common shareholders. While few are disposed to believe that the latest offer, which makes no provision for the preferred and common shareholders, will find such holders frozen out, signs are not lacking that representatives of such equities were preparing for action, with every likelihood evidenced that further offers would be made in the near future.

A World Record?

A dispatch from Halifax, N. S., says: "What is believed to be a world's record for any plant of its size has been established by the Mersey Paper Company, at Liverpool, N. S., when, on a recent day, the output of first quality paper reached the high mark of 347.9 tons. The plant has been operating at more than its rated capacity during the year and on many occasions the credited capacity of 250 for the two machines, per day, has been exceeded in twenty-four hours of steady running."

Fraser Companies Earnings Up

Substantial gains in both earnings and balance sheet position are reported by Fraser Companies Ltd. for 1935. The president's report indicates that a plan is to be considered to provide for satisfaction of the deferred charges in such a way as to protect working capital and thus permit income requirements of holders of the company's securities to be met by resumption of bond interest payments on July 1 next.

Earnings for the year under review, before interest charges, depletion and depreciation, amounted to $1,827,623, as against $1;576,227 for 1934 and $1,115,540 for 1933. The net loss, after all charges, is shown at $83,288, against a net loss of $371,841 for 1934.

Restigouche Co.'s Report

A small reduction in earnings and a substantial improvements in balance sheet position is shown in the annual report of Restigouche Company, Ltd., for 1935. President K. S. Maclachlan in his report states that the pulp mill operated at full capacity during the year, but that the average market value of pulp was lower than in 1934.

Earnings after operating expenses and taxes were $612,834 compared with $537,256 for 1934, and after provision for bank interest at $6,298 bond interest at $289,232 and accrued interest on accumulated interest at $87,527, there remained a balance of $279,775, the year's fixed charges being thus earned by a comfortable margin before depreciation. For 1934, earnings after interest were reported at $300,531. After deduction of depreciation for 1935 at $252,599 and depletion at $28,437 there was a net deficit of $1,261, against 1934's net profit of $1,011.

Committee Chairmen Announced

In a joint statement issued this week, President Charles Champion and General Chairman F. L. Zellers, announced the appointment of the following group chairmen to preside at the Group Meetings which will be a feature of the Convention of the American Pulp and Paper Mill Superintendents Association, June 24, 25 and 26, at the Hotel Pantlind, Grand Rapids, Mich.

Sulphite Pulp—S. E. Tomczak, Flambeau Paper Company, Park Falls, Wis.

Ground Wood Pulp—Sidney D. Wells, Combined Locks, Wis.

Sulphate Soda Pulp—C. S. Stoke, Tomahawk Kraft Paper Company, Tomahawk, Wis.

Board—John H. Brougham, Penn Fibreboard Corporation, York, Pa.

Book and Fine Papers—J. R. Simpson, Champion Fibre and Paper Company, Hamilton, Ohio.

Tissue—H. H. Harrison, Crystal Tissue Company, Middletown, Ohio.

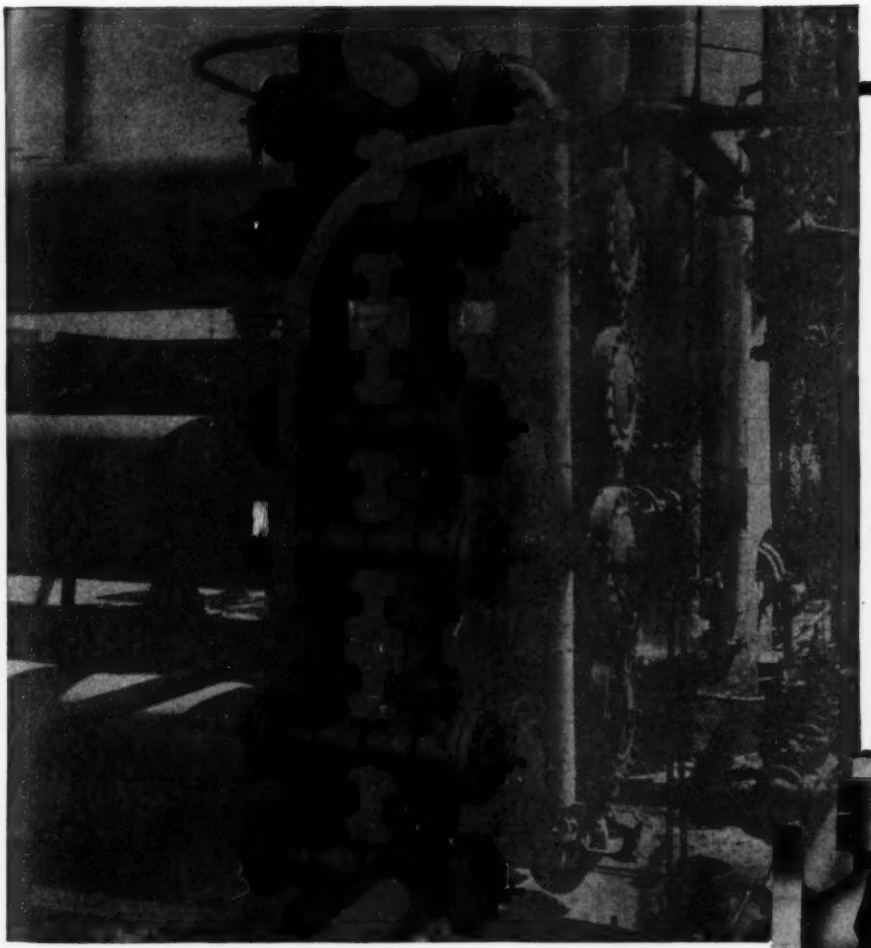
Japan Increases Production

Production of foreign style paper in Japan in November amounted to 74,142 short tons, according to the Japanese Paper Manufacturers' Association, showing an increase of 1,346 tons against the previous month's output and an increase of 4,278 tons compared with the corresponding month in 1934.

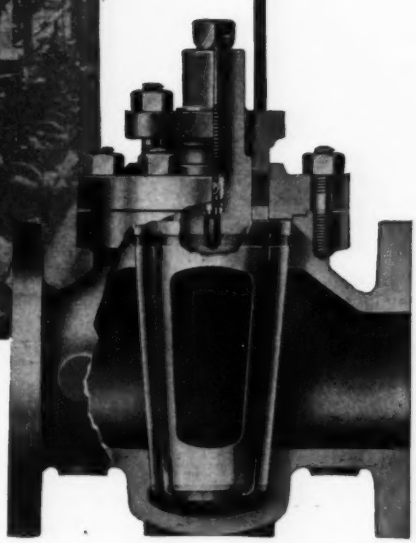
Production for the first eleven months of 1935, the report states, totaled 787,812 tons, an increase of 8.6 per cent compared with the corresponding period in 1934. Sales during the first 11 months of 1935 totaled 765,416 tons, an increase of 5.3 per cent over 1934. Imports of paper during this period amounted to 75,266 tons an increase of 23 per cent in volume over the corresponding 11 months in 1934.

WALWORTH

LUBRICATED PLUG VALVES



A TYPICAL INSTALLATION OF WALWORTH *three-way* LUBRICATED PLUG VALVES



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Paper Industry Outlook Bright In Chicago

Practically All Grades of Paper Display Firmness—Some Improvement Experienced in Book Paper Section—Further Developments Anticipated in Sulphite Bond Division—Kraft Wrapping Paper Situation Favorable—Paper Board Fairly Active

[FROM OUR REGULAR CORRESPONDENT]

CHICAGO, Ill., March 2, 1936—The majority of Chicago's paper executives are busily engaged in analyzing the results of the meetings in New York. Markets remain quite firm in virtually every case, and certain lines are reported to be either enjoying actual advancement or expecting it at any time. The sulphite bond market remains firm, and an optimistic attitude is being maintained with respect to further developments.

Book papers are said to have made some genuine improvement during the past seven days, although little change is reported in covers. Ground woods were unchanged, while the kraft markets were said to be holding firm. Envelopes were materially strengthened.

Local commentators were interested in the announcement of the active part taken by newspaper publishers in the re-development of a Canadian newsprint mill and wondering as to its effect on the market in general.

Paper board was in fair demand, while certain grades of waste paper were reported to have shown slightly less strength as better weather conditions made collections more easy.

Effects of Reciprocal Trade Agreements

Under date of February 25 the National Paperboard Association has issued, from its Chicago headquarters, an analysis of the effects of reciprocal trade agreements on American paper and paperboard industries. The report was prepared by Warren B. Bullock, manager of the import committee of the American Paper Industry. The statement summarizes conditions developing from the consummation of various trade agreements with foreign nations under the so-called Reciprocal Trade Agreement Act, enacted as an amendment to the Tariff Act of 1930. Mr. Bullock gives a preliminary comment to his analysis as follows:

"The Trade Agreement Act deprives the American manufacturer of any recourse as to any commodity mentioned in any trade agreement, such as application to the Tariff Commission under Section 336 of the Tariff Act for change of duty under the so-called flexible tariff provision of the Act. While the president, under the unamended act already had the power to make any change up to 50 per cent in the rates of duty which were found to be unjustifiable, the Trade Agreement Act now denies any relief to the American manufacturer regardless of any change in conditions which may develop with regard to prices of foreign merchandise.

Mr. Bullock then, after further comment, develops information relative to the Trade Agreement with Belgium, effective May 1, 1935; the Agreement with Sweden, effective August 6, 1935, and the Trade Agreement with the Netherlands, effective February 1, 1936.

Container Earnings Up

The Board of Directors of Container Corporation of America met on Wednesday, February 26. Walter P. Paepcke, president of the corporation, announced that because a very important project is under consideration which holds interesting profit possibilities and further insures the company's and, therefore, the stockholders' future, but which also requires a financial investment, it was concluded to take no action on dividends at this particular time.

Audited earnings for 1935 were $1,238,009.27 or $1.89 per share on the present outstanding capital, as compared with 1934 earnings of $1,112,711. These earnings are after all charges, including depreciation, interest and federal income tax; depreciation charged against profit and loss in 1935 was $168,000 higher than in 1934. The complete stockholders' report is in process of preparation and will be mailed out to the stockholders about the middle of March.

Vortex Cup Earnings Down

Bad weather and heavy selling costs combined to place the 1935 net income of the Vortex Cup Company at the lowest level in its history, according to the annual report issued this week. Net income for last year was $312,476, equal, after Class A dividends, to $1.35 a share on the 101,458 shares of class A stock. This compares to $423,210, of $2.45 a share on the common in 1934. Working capital decreased during the year to $834,940 from $890,000, which is reported to reflect additional machinery to manufacture new lines of paper cups. The stockholders will vote on March 14 on a merger with the Individual Drinking Cup Company.

Salesmen Welcome New Officers

The Midwest Division of the Salesmen's Association of the Paper Industry utilized a part of its Monday, February 24, meeting to pay its respects to the two new officers of the national association, both of whom are members of the Midwest Division. R. C. Johnson, newly elected president, was vice-president of the Midwest Division last year. He is connected with the Northwest Paper Company. J. T. Burrus, Albemarle Paper Company, and long an active member of the association, becomes the divisional vice-president.

A. N. Forsythe Passes On

The Chicago paper fraternity is mourning the death of A. N. Forsythe, Chicago sales manager of the American Writing Paper Company and one of the deans of the paper industry. Mr. Forsythe has not been in good health for some time although it was only a week prior to his death that he was not actively engaged in contacting his many friends in the trade. Death was ultimately due to a heart ailment and occurred on February 23. Funeral services were held on February 26 and were widely attended by prominent members of the paper industry.

Mr. Forsythe was sixty-five years old at the time of his death. He had been Chicago manager for the American Writing Paper Company since 1923 and the office headquarters at 10 South LaSalle street report that he had been identified with the company since its inception in 1899.

Throughout the 36 years Mr. Forsythe became known to thousands of paper executives and sales people as well as to the trade he serviced. He is survived by his wife, mother, two sisters, three brothers, three sons and grandchildren. No announcement has been made as yet with respect to a change of personnel at the Chicago office.

OUT of Gloucester, New Bedford, Salem, and other great maritime cities of New England sailed the famous Yankee clipper ships manned by Pioneers of the sea...men who had courage and integrity...men whose ideals of service were high...men who dared to chart new pathways of the deep and thereby left a glorious tradition in their wake. • Cut to the same mold are the pioneer engineers at EBG who produced Liquid Chlorine in America first and first adapted it to many new uses. We offer you the services of EBG—an organization that knows its job, possesses courage and integrity...and brings to its work a superb pioneering tradition.

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SCULPTURED IN TIN BY L. L. BALCOM

Paper and Cordage Men Meet in Philadelphia

Members of Paper Trade Association of Philadelphia Entertained by Members of Paper and Cordage Association—Norman A. Considine Reviews Developments in Paper Industry During Last Twenty Years—Other Distinguished Speakers Address Gathering

[FROM OUR REGULAR CORRESPONDENT]

PHILADELPHIA, Pa., March 2, 1936—Members of the Paper and Cordage Association of Philadelphia were hosts to the members of the Paper Trade Association of Philadelphia at its monthly luncheon in the Adelphia Hotel on Friday last. Upwards of sixty were in attendance. The purpose of this joint luncheon meeting was to promote good fellowship among those in the trade. President George K. Hooper, after dwelling on the desirability of mutual relations between the two groups, introduced the speakers.

Norbert A. Considine, president of the Paper Trade Association of Philadelphia, briefly reviewed developments in the paper industry over the last twenty years and pointed out that the industry was now the sixth largest in the country. He stated that although at present there seems to be a fairly general desire on the part of business to be free from governmental control, he expressed the opinion that business would probably be subject to regulations for some years to come, and it would then be incumbent upon business to cooperate with the Government to the extent of advising them of proposed legislation affecting their particular industry.

Other speakers were Ormand Freile, vice-president of the Fine Paper Division; Harry Lefkowith, vice-president of the Bag Division, and John R. Howarth, of the Howarth Paper Company, who, in turn, discussed various phases of association work. E. T. Walter, of Wilcox-Walter-Furlong Paper Company, chairman of the Credit Group for the Paper Trade Association, explained to the members the credit policy, which is simply a policy of credit extension of material interest to printers because of the fact that it makes all accounts equal and shows favoritism to none.

Joseph J. Alexander, Philadelphia representative of Dun & Bradstreet, gave a brief and interesting survey of business conditions; he mentioned that business was on the upturn; that it was improving in all lines, and that prospects for the first part of 1936 looked very bright. He pointed out that business in 1935 had, on the average, been running 6 to 10 per cent higher than 1934.

Eugene N. Lazenby, cousin of President Hooper, president of the Industrial Paper Company of Baltimore, and formerly president of the Paper Trade Association of Baltimore, was in attendance in an effort to get some ideas that might be helpful to the Baltimore group. William A. Meeks, executive secretary of the Typothetae of Philadelphia, was called upon to impart some information from his inexhaustible supply of news of the trade, but he graciously declined on account of a cold in his head from which he was suffering, having impaired his stentorian voice.

State Paper Requisitions

On invitation sent out by the Director of Publications at Harrisburg, a group of paper merchants and manufacturers convened in the office of I. Paul Linn, Director of the Department of Public Printing at Harrisburg on Thursday, February 27, for the purpose of considering recommendations for changes in the schedule of paper for the Commonwealth of Pennsylvania for the year beginning July 1, 1936. Among those present were representatives of Whitaker Paper Company, of Baltimore; Alling & Cory Company, Pittsburgh and Buffalo; P. M. Glafelter Company, Spring Grove, Pa.; Johnston Keffer & Trout of Harrisburg; the Wilcox-Walter-Furlong Paper Company and The Paper House of Pennsylvania, both of Philadelphia, together with a number of representatives of the Commonwealth.

Heretofore, it had been customary for bidders to propose prices in various quantity brackets on each item. When the various bids were filed it frequently developed that as many as four or five bidders were low bidders in the same item but in different quantity brackets, thus causing a great deal of confusion in the making of awards in the distribution of requisitions by the State.

To remedy this difficulty it was proposed to simplify the schedule by having a standard set of quantity mark-ups for a base price adopted, so that the only bids received by the Department would be for a base price.

Various other schedules were discussed but no definite arrangement was reached for the present, as it was felt that a number of factors which had to be taken into consideration had not been fully developed as yet.

News of the Industry

A heavily loaded truck and trailer of the Pioneer Paper Stock Company, Fifth and Bristol streets, where a strike of drivers is in progress, was stolen and sent plunging into the Delaware River on Tuesday last. Two men seized the truck as the driver and helper were preparing to unload at the plant of the Simkins Paper Box Company, and drove it to the river's edge at the foot of Poplar street. Then they gave the truck a running start, and jumped off just before it plunged into 35 feet of water.

Winfield Predmore, president of Paper Merchants, Inc., is well on the way to recovery from his recent operation, and is expected to return convalescent to his home in Collingswood, N. J., some time this week.

Harry F. Donahue, president of The Molten Paper Company, 25 South Sixth street, accompanied by Mrs. Donahue, left this city on a motor trip to Miami Beach, where they will spend the month of March.

H. C. Parsons Dead

H. C. Parsons, connected for a long number of years with the Keith Paper Company, Turners Falls, Mass., died Saturday, February 22, after a protracted illness.

Mr. Parsons' earlier experience was with the L. L. Brown Paper Company, Adams, and the Strathmore Paper Company, Woronoco. He came to the Keith Paper Company in the fall of 1908 as superintendent of finishing, a little later he was given charge of the manufacturing end. He served in this capacity until he was obliged to relinquish the more important responsibilities, due to ill health, since which, he has served in an advisory capacity.

Mr. Parsons was highly respected by all his associates, he had a wide acquaintance and had a host of friends not only in paper circles, but throughout the Connecticut Valley.

The funeral took place at his home in Turners Falls, Tuesday, February 25, and burial was in his old home, Adams, Mass.

Demand for Paper Moderately Active In Boston

Various Standard Grades of Fine Paper Moving Slowly Into Consumption—Request for Wrapping Paper Irregular—Box Board Business Rather Quiet—Paper Stock Attracting More Mill Interest—Roofing Stock Quotations Still Advancing

[FROM OUR REGULAR CORRESPONDENT]

BOSTON, Mass., March 2, 1936—The volume of wholesale paper business in the Boston area averaged hardly better than fair last week, it is estimated. With a number of houses the demand was slow, but with others it was very good. In some quarters of the fine paper market, the entire month of February was reported as slow, undoubtedly due, in part at least, to the extreme cold and heavy snows, which prevented retail customers from venturing forth. On the other hand, a well-known fine paper house noted that it was the best February ever experienced. The diploma business has started early, with a good demand. One house is rather busy with other lines of specialties. Conditions in the wrapping paper division were similar to those in the fine. Box board was quiet.

Paper stock remained in general good demand. In old papers, there was no difficulty in selling mixed papers and old newspapers. As previously intimated in these columns, the ice, snow and cold weather has reduced the supply very much, on account of the difficulty in making collections, but now that open weather is expected, more will be available. Prices of mixed papers and old newspapers continued at the same levels, .25 @ .35 and .27½ @ .30, respectively. In fact, the entire list of old papers remained unchanged in price. No. 1 kraft and corrugated stock were in demand. Bagging tended a bit easier, although no actual price reductions developed. There was no trouble in disposing of any stock.

New domestic rags were strong and active, with a number of price advances. New white No. 1 shirt cuttings rose to .08 @ .08¼ from .06¾ @ .07, silesias No. 1 to .05½ @ .06 from .04¾ @ .05, new black silesias to .03½ @ .04 and soft unbleached to .07¼ @ .07¾ from .06¾ @ .07.

Old domestic rags were likewise in good demand, with roofing stock still advancing. No. 1 roofing stock jumped to 2.05 @ 2.10 from 2.00 @ 2.055, No. 2 to 1.85 @ 1.95 from 1.80 @ 1.90 and No. 3 to 1.60 @ 1.65 from 1.50 @ 1.60. In foreign rags, dark cottons moved well, going up to 2.00 @ 2.25 from 1.90 @ 2.15.

Carter, Rice & Co., Corp., have just added to their warehouse stock Cloth-of-Gold Covers, made by the Advertisers Paper Mills, Holyoke, Mass. They have issued a book containing a swatch of these covers in white, nut brown, heather, sepia, opal, convent gray, gold, empire green and sunset. This distinctive new line ranges from dainty and neutral tints to bright strong shades, all of which may be readily adapted to all forms of direct advertising—from jewelry and millinery announcements to furniture, automobile and machinery catalogues. With the embossed design and character built into Cloth-of-Gold Covers, they do not require the use of expensive art work and plates. The cover of the book containing the swatches is of Cloth-of-Gold nut brown, double thick, with the title page of Advertisers Laid Leaves, russet.

Carter, Rice & Co., Corp., has a window display of twines, one window showing festoons of cotton fibers combed out and specimens of twine in spools and in balls, artistically arranged. In another window are Columbian manila rope and commercial twines, together with balls of twine, attractively arrayed.

The Brown Company, Portland, Me., has appointed Ginsburg Bros., Inc., Somerville, Mass., distributors of Nobroc towels in the Metropolitan Boston area.

The Groveton Paper Company, Groveton, N. H., has placed an additional man, Eugene Dunbar, in the New England territory, with headquarters at 80 Federal street.

Harold Fuller, president of the National Paper Box Manufacturers Association, and head of Bicknell & Fuller Paper Box Company, was in New York last week in connection with association work.

Henry Ford, salesman of paper specialties for the Andrews Paper Company, has returned from a business trip to New York, where he found activity in his lines ahead of that of a year ago at this time.

Mr. Goodrich, of Case Bros., Inc., Highland Park, Conn., manufacturers of press boards and hard fibre boards, was in Boston last week.

Heads International Hydro Electric

Irwin L. Moore, vice-president of the International Hydro-Electric System, was elected Monday of this week, president of the company to succeed Archibald R. Graustein, who resigned as president and director after having held those positions since the company was organized in 1929.

Mr. Graustein's resignation follows his decision to withdraw from all his offices in the International Paper and Power group, and was accepted with expressions of regret and of gratitude for his services to the system. He remains a director of the Canadian Hydro-Electric Corporation and of the Gatineau Power Company, and is in charge of negotiations with the Ontario Government with respect to power contracts.

Directors of the International Hydro-Electric System also accepted the resignations as directors of Ralph Lowell of the Boston branch of Clark, Dodge & Co. and Robert S. Weeks of the Boston investment banking firm of Whiting, Weeks & Knowles, Inc. These vacancies and that created by Mr. Graustein's resignation from the board were filled with the elections of William A. Hanway, John F. Rollins and E. B. Norcross. Mr. Hanway also was elected a vice-president of the system.

Mr. Moore was born in New Jersey in 1896 and attended the Worcester, Mass., English High School and Cornell University, from which he was graduated in 1917. He served in the gas section of the Bureau of Standards during the war, working on balloon fabrics, and afterward entered the Massachusetts Institute of Technology, which graduated him in 1920. After a period with the Aluminum Company of America, he joined the New England Power Company in 1921 and the power branch of the International Paper Company in 1926.

To Hear Pollution Bill March 16

According to information just received from Washington, March 16, has been tentatively set as the date to hear arguments in opposition to the stream pollution bill before a subcommittee of the Senate on Commerce, of which Mrs. Caraway of Arkansas is chairman.

Tomorrow's Money*

By Frank E. Gannett[1]

I am sincerely sorry that Mr. Frank A. Vanderlip, whom we all respect and admire, could not be here today to talk to you on the subject assigned him. He is an authority on this question and it is too bad you must put up with me as a pinch-hitter on this occasion.

I should not have come here today, but for my deep interest in your organization and your industry. Your business is to make paper. My business is to try to consume it. We have, therefore, a common bond. We should be able to speak the same language.

The subject assigned me is "Tomorrow's Money." Mr. Vanderlip has written a book under that title. I have read it and have studied all of Mr. Vanderlip's writings. I agree with him absolutely.

Today's Money

Before we consider tomorrow's money, I should like to discuss briefly today's money, particularly gold—a magic word that somehow has confused the thinking of most people. Gold is a commodity just as wood pulp, tin, lead, zinc, silver, wheat and corn are commodities. There is relatively a small amount of gold in the world. We are told that all the gold available would make only a thirty-foot cube. Gold is subject to the law of supply and demand; its value changes just as the value of any commodity changes. For more than 100 years our government said that a piece of gold weighing 23.22 grains was a dollar. That is where all our trouble began. As a result of its fixed gold content, we have had a dollar of constantly changing purchasing power.

When gold is hoarded and withdrawn from circulation, it increases in value so that we say "gold is scarce." We are then compelled to give more of any commodity for a certain amount of gold. When gold doubles in value, as it did between 1929 and 1933, you have to give twice as much of a basic commodity for a given amount of gold. If we say that that amount of gold is a dollar, you have to give two bushels of wheat instead of one for a dollar —twice as much of any commodity for a dollar.

The production of gold barely keeps pace with the increase in business. Whenever there has been a marked increase in the production of gold, we have had booms and high prices. Stated another way, when gold became less valuable, prices rose. The discovery of gold in the Klondike and in South Africa and the discovery of new methods of extracting gold, all had their effects on prices of basic commodities. I want to emphasize that I am speaking about the *value* of gold, not its price! *Value—not price!*

The Collapse in 1929

In the few years prior to 1929, we were enjoying great prosperity. Every one was employed, business was booming. We seemed about ready to abolish poverty. Then something happened. There was a crash—a collapse in prices of basic commodities, not only in America, but throughout all the world that was on a gold standard. What caused this collapse in prices? The general rise in the value of gold. Gold became so much in demand, and therefore so valuable, that 33 nations were forced off, or voluntarily left the gold standard even before the United States ceased gold payments. When the prices in gold of 50 or 60 basic commodities fall in the world market, isn't it safe to conclude that it is not their value that falls, but rather the value of gold that rises?

For thousands of years people thought the sun rose, passed across the heavens and sank below the western horizon. Only a few great minds ever surmised that the sun might be standing still and the world revolving about it. People had an illusion about the sun rising and they held to that illusion until Galileo and other early astronomers began to prove that the earth revolves around the sun.

Today, we have many intelligent people suffering from a similar illusion about gold. They think gold always remains of the same value. The fact is that, instead of always remaining at the same value and being a fixed, standard measuring stick, its value has risen and fallen, making it appear that the commodities which it measured fell and rose in value.

The *value* of a dollar is not fixed by saying it shall always consist of so many grains of gold. The *value* of a dollar is what it will buy. The Supreme Court, in the gold clause case, said this emphatically. Just so long as we say that a fixed number of grains of gold at a fixed price is a dollar, we have a dishonest dollar, for it varies in purchasing power. The dollar, our measure of value, has itself been changing constantly. Because we did not know it, we did not protest.

Now we know that it was this changing measure of value, as expressed in prices, that brought on the woes of the depression.

How the Changing Measure of Value Works

Here is how this changing measure of value works. A farmer gives a mortgage for $10,000 on his farm. This mortgage, when made, could be paid back, say, with 10,000 bushels of wheat. But the *value* of the dollar changes and he may find it necessary to give 20,000 bushels of wheat to pay the mortgage. Or he may be lucky and be able to pay it off with 5,000 bushels of wheat if the value of gold falls. We could substitute any other commodity for wheat in a similar situation.

Before the crash in 1929, nearly all of us—individuals, corporations, nations—went into debt. The total recorded indebtedness of all kinds in this country was said to be about 300 billion dollars. When the value of the dollar rose in purchasing power, we found it impossible to pay these 100-cent dollar debts with dollars worth 200 cents in buying power. Then followed, of course, contraction of credit, bankruptcy, destruction of equities in homes, farms and business. We called it a depression. It was more than that—it was disaster! Millions are still suffering from it.

You men in the paper and wood pulp business know what happened to prices in your industry. It is not necessary for me to give you the figures. You know them.

Let me say another word about prices. There is much confusion and misunderstanding of prices. There are two kinds of prices—prices that fluctuate widely, and prices that are largely fixed by monopoly or are administratively set. In the latter class, we have such charges as insurance, freight rates, bus and train fares, telephone and telegraph, utility charges and service charges. Changing the gold content of the dollar does not immediately affect these fixed prices. These prices did not fall in the price collapse

* Presented at the annual luncheon of the Technical Association of the Pulp and Paper Industry, Waldorf-Astoria Hotel, New York, Feb. 20, 1936.
[1] President, Gannett Newspapers, Inc., Rochester, N. Y.

that began in 1929, and they did not rise perceptibly when we lessened the gold content of the dollar.

Not an Act of God

America is practically the same today as it was in 1929. The depression was not an act of God. It was not caused by any destruction of our resources, nor by any failure to produce. The depression was man-made. It stands out as a monument to our ignorance and stupidity. There were plenty of all products available, but because our system of exchange broke down, because of our ignorance about money, the whole economic machine stalled. Millions were ready to work, but had no jobs. Millions were without the things they needed, but could not buy. We could not exchange products for services, or services for products, because of a collapse in our monetary system.

That is why this question today is of such great importance. I know that you in the paper and pulp industry suffered frightfully from the collapse in prices, due, as I said before, to the rise in the value of gold throughout the world. Isn't it worth while then, to study, with an open mind this gold question and its effect on all business?

Just a year ago yesterday, Mr. Vanderlip made this statement over a National Broadcasting Company network:

"We have already tried borrowing and spending our way to recovery. We have made numberless hopeful and well-meant experiments, aimed to bring us out of the depression. Thus far we have not emerged, nor will we—until the fatal defects of our money system have been corrected. To those defects, more than to any other cause, I attribute the depression."

Must Put Employables Back on Payrolls

I agreed with Mr. Vanderlip at the time. And I see no reason to question that view now. It is true, that business has improved in many directions. But, we shall not be out of the depression until the employable unemployed are back on payrolls—actually producing. Such recovery as we have had, and such as we may have, will not be permanent, unless it is put upon a more secure foundation.

I am not an alarmist, but I fear that America will not be safe from what has happened in some of the countries of Europe, if we don't put millions of idle men back to work and take more millions off our relief rolls.

A little over a year ago, I made a tour of Europe to study political and economic conditions. I was amazed by the prosperity that Great Britain is enjoying, along with the 21 countries composing the sterling bloc—those countries doing business on the basis of the pound sterling. This prosperity has increased since I was in London. I asked many men high in finance, business and government what were the factors in this great prosperity. I was told, again and again, it was the wise handling of monetary matters in the Empire.

In contrast to conditions in Great Britain are conditions in those countries which still cling to the old fixed-price-for-gold standard—France, Holland and Switzerland. In those countries, deflation continues and the depression is prolonged to such a point in France that no one can predict what will happen if the franc is not revalued.

Coming back to the depression in America, we want to remember that 33 nations went off the gold standard and revalued their currencies—yes, devalued their currencies, before the United States took action. They cut down the gold content of their currencies. They raised the price of gold.

When we went off the gold standard, President Roosevelt, in a national radio hook-up, said that his aim was to give us a dollar of constant purchasing power over a generation. But he stopped at $35 gold. If he had gone through with his program and given us a sound currency and monetary system, instead of trying to restrict the production of wealth through NRA and AAA and other like measures, we would be much farther along on the road to recovery.

Why haven't we the wisdom to study what Great Britain has done, and take advantage of her experience?

The British Program

Let us look at the British program. A Committee of Finance and Industry, appointed by the British Treasury in November, 1929, put its finger directly upon the cause of the world depression. That committee occupied nearly two years in making its investigation and report. It pointed to the collapse of raw material prices, and the consequent loss of purchasing power by raw material producers. It said that prices of primary products must be raised—the purchasing power of primary producers must be restored before there could be a return to prosperity.

The Committee of the British Treasury set up a new monetary objective for the British Empire. It was to restore prices for primary producers and bring them into equilibrium with their cost; then to manage the monetary system so as to maintain stability of prices. The purpose was to put an end to deflation, and thereafter to prevent an equally dangerous inflation.

The Committee on Finance and Industry appointed by the British Treasury fore-shadowed in its report, nearly five years ago, the fundamentals of tomorrow's money—money stable in purchasing power.

The report of that committee was never adequately publicized in the United States. I have met very few bankers, or economists, or business men who have ever read it. If they had, Mr. Vanderlip's ideas regarding necessary monetary reforms in the United States would be recognized as sound and constructive—really conservative.

We are in fact woefully behind Great Britain and its allied sterling nations in our monetary thinking.

Your industry has experienced ample reason for approving the price-raising objective which the British so clearly set forth in 1931. I realize that some men in the pulp and paper industry have been keenly aware of the monetary causes of their difficulty. But I know also, that many of you found it embarrassing to voice positive opinions when your bankers were telling you that monetary policy had nothing to do with the depression.

It will be easier to discuss the problem of money if we first relate it to our own business. The controversy, of course, revolves around the gold standard. Why have the sterling area countries — which include your great Scandinavian competitors—been able to restore their internal prosperity, reduce their unemployment and bring their indexes of business activity up to or higher than their 1929 level? How did the monetary policy of Great Britain and her allied sterling countries effect a price rise for their primary producers? Let us try to answer these questions in terms of something that comes close home to you —sulphite pulp.

An International Commodity

We all recognize that wood pulp is an international commodity. Like cotton, wheat, copper, tin, lumber and other raw materials of universal use, wood pulp exchanges everywhere for the same amount of gold—gold being international money. You can account for any difference in price of such strictly international staple commodities by the cost of transportation and tariff differentials between world markets.

The research department of the Committee for the Nation, has compiled for me the price of sulphite in terms of gold in the United States, Finland and Sweden, begin-

ning with the year 1930 and ending with the first eight months of 1935. The changes in the gold value of a ton of sulphite of the same grade ran parallel in all three countries. To avoid the confusion of a great many figures, I give you only the average gold value for the three countries combined.

The following figures show the value of a ton of sulphite in the United States, Finland and Sweden:

1930	2.26 ounces of gold
1931	1.83 ounces of gold
1932	1.20 ounces of gold
1933	1.15 ounces of gold
1934	1.05 ounces of gold
1935 (first 8 months)	0.94 ounces of gold

We see, therefore, that we can now buy a ton of pulp for a little less than one ounce of gold, where it required 2¼ ounces in 1930.

If we still had the same weight of gold in the dollar as we had in 1930, with a ton of sulphite worth .94 of an ounce of gold, the price of sulphite in dollars would be $19.43 a ton—instead of $39.25, the average United States price for the first eight months of 1935. Similarly, the price in Finmarks and Swedish kronor would be reduced.

There you have a practical bearing of monetary policy on your own business. Wood pulp is only one of a score of internationally-priced stable primary products whose domestic price in any country is related directly to the gold content of each country's monetary unit.

Changes in Gold

The amount of gold in the pound sterling has been changed practically every day for the last four years. Before the 1929 crash an ounce of gold was worth 85 shillings in British currency. Today it is worth 140 to 141 shillings. In other words, instead of letting the whole price level of commodities rise and fall as the value of gold rises and falls, the British stabilize commodity prices by changing the amount of gold in the unit of their currency.

One-third of the world's population is living under this managed currency system of Great Britain and its allied sterling countries. The London Daily Telegraph estimated last year that two-thirds of all international trade is being conducted through managed sterling. And these countries are leading the world to prosperity, while we have lagged far behind.

When a person speaks about managed money or managed currency, he does not mean that we should abandon gold as the basis for our currency. Instead, he means that the price of gold—that is the amount of gold in the standard of value, in our case, the dollar, is changed according to the price indices.

Confusion About "Commodity Dollar"

There is also confusion about the term "Commodity dollar." We now have a commodity dollar—a one-commodity dollar—gold. We have had from time to time a two-commodity dollar, gold and silver. We might have a dollar based on ten commodities. Better still, we can have a dollar based on the average of 50 or 60 commodities, and this dollar will, of course, be more stable in value than it would be if based on one commodity—gold.

We made the mistake a year ago of going back to a fixed price for gold at $35 an ounce. The British have refused to adopt such a policy, as I have just outlined. The London Times, an authority on British policies, in a leading editorial in the Times, December 5, said that none of the Empire Governments, least of all the Government of Great Britain, is likely to depart from its currency policy. That policy made price restoration for the primary producers its first objective, and after that, the stabilization of the buying power of money.

Examination of the trend of monetary thinking outside of the United States seems to make it perfectly clear that tomorrow's money will not be the gold standard money which we used to know. It will be money managed to keep it stable in purchasing power, managed so as to prevent disastrous inflation and equally disastrous deflation. The question is how to accomplish this objective.

Mr. Vanderlip thought out clearly the mechanism required to give our country a competently managed monetary system.

It may be well in passing to say that any currency system requires management. The gold standard system required management. Money that changes violently in value, as gold has changed in value in the last two decades, cannot honestly, by any stretch of the imagination, be called "sound" money. In this point our British friends are quite clear.

The head of the world's largest bank, the Midland of London, is Reginald McKenna, former Chancellor of the Exchequer. He said last month in reference to British currency management:

"How well their task has been accomplished in the last four years is shown by the steady recovery of trade and industry throughout the sterling area in a world which is still economically disorganized and depressed."

The question is what can be substituted for a fixed weight of gold as a permanent standard of value? We all want money in which we have unshakable confidence. We did not have unshakable confidence in money four years ago, although we were clinging unshakably to the "good old gold standard."

Has Tried to Mix the Unmixable

The Administration in Washington has tried in its monetary policy, as in other things, to mix the unmixable. It has attempted in the banking and currency legislation enacted last year, to provide some elements of currency management while retaining the most impractical feature of the gold standard—a fixed gold value or fixed gold content of the dollar.

The so-called Banking Act of 1935, reconstructed the Federal Reserve Board and made that body the driver of our monetary car. It put the steering wheel, the brake and the gas under control of the driver on the front seat. But it put the clutch in the hands of the back-seat driver in the back seat. I do not believe any of you would wish to travel far in such a contrivance.

To be specific, the monetary controls essential for regulating the value of money in a modern currency system are:

1. Open market operations.
2. Rediscount rates.
3. The ratio of reserves to deposits, and
4. The government price of the monetary metal, gold —and if you wish, silver.

The Federal Reserve Act, as amended last year, places the first three controls in the hands of the Federal Reserve Board of Governors, but leaves the fourth, under the terms of the Thomas Amendment, still in the White House.

A Federal Monetary Authority

Mr. Vanderlip, in his public addresses and in his book entitled "Tomorrow's Money," provided for a Federal Monetary Authority which should manage our currency under a definite mandate from Congress. Such authority would have:

1. The sole right to issue currency.
2. The right to buy and sell gold (and, if so desired, silver also) in an open market to be established in the United States.

3. The right to buy and sell early maturing government obligations, foreign exchange and bankers' acceptances.
4. The obligation to rediscount for the Federal Reserve Banks.

The proposals for a Federal Monetary Authority were set up by Mr. Vanderlip and are now advocated by all of the major national farm organizations, by the Committee for the Nation, and by many individuals. They would require Congress to give a definite mandate to the Monetary Authority, or Federal Reserve Board or whatever name might be given the monetary managers. This monetary authority would have to regulate the value of the dollar in terms of purchasing power, but definitely within prescribed limitations of a suitable commodity price index of say 50 or 60 basic commodities. Such an index would preferably be an index of staple primary products which are traded in world markets.

There would be no discretion left to the currency managers.

When the price index of say 50 basic commodities fell below the prescribed level, they would be compelled to take steps to check the decline by the methods I have outlined.

And when prices rose above that level they would be compelled to take the contrary action to check the inflation.

Such a monetary authority would be divorced absolutely from the Treasury. The men would serve for life, as do Justices of the Supreme Court. They would be insulated against political pressure and financial pressure. If an administration could not dictate to the currency managers —if the supreme monetary authority were set apart, surrounded by the same independence and respect which the nation accords to its Supreme Court—sound currency management would be the bulwark against inflation and the surest defense of our economic liberty.

If we will not think and act constructively to maintain our economic liberty, we might as well stop talking about our political liberty and all the other liberties which are guaranteed by the Bill of Rights in our Constitution. We shall lose all of them if we cannot find a way to make our monetary system work.

Rights of Free People Endangered

Liberty always suffers in economic chaos. The rights of a free people are endangered when the very basis of commerce and trade and free enterprise, really *sound money,* is imperiled. And we shall never have sound money, an honest dollar, until we have intelligence enough to manage it in accordance with enlightened monetary science.

Here we have a great nation, rich in resources, leading the world in inventive skill, with capacity to produce plenty of everything. In the midst of abundance we have great want, distress, suffering. What an indictment of our intelligence, that we don't have the machinery for exchanging goods for services, services for goods. If we did have this, we would have prosperity, more jobs than men. All of our booms and resultant depressions, with their frightful devastation of lives and properties, have been due to our stupidity in regard to money. Gold has proved traitor to civilization and by its fluctuations in value almost destroyed it. Another depression like the one we have been experiencing, and we shall have chaos. America cannot stand another such blow. Our form of government, our capitalistic system will perish.

I sincerely hope that this unusual group of thinking, successful, educated men will take a real interest in this subject and help bring about a reform of our monetary system. Give us that and we will not only regain prosperity, but we will maintain it. End disastrous inflations and deflations, stabilize conditions, provide an honest dollar fair alike to debtor and creditor over the years. Give us such a dollar and we will set in motion a freer exchange of goods, products and services, so that all business will thrive; do this and America will once more be the happiest, most prosperous, most wonderful nation on earth.

TAPPI Annual Luncheon Speaker Candidate For Vice Presidential Nomination

Many who attended the annual luncheon of the Technical Association of the Pulp and Paper Industry will be interested to learn that the principal speaker, Frank E. Gannett, publisher of nine newspapers, was designated as the running-mate of Senator William E. Borah in the Ohio presidential primaries.

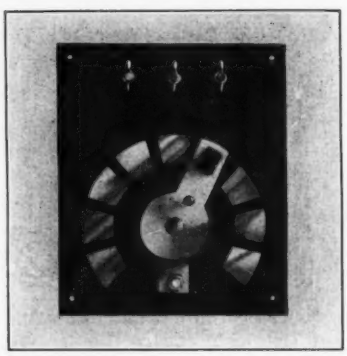
Associated Press Photo

TEMPERANCE NO TECHNICALITY HERE

Apparently getting ready to make his address at the annual luncheon of the Technical Association of the Pulp and Paper Industry, Frank E. Gannett, (left), newspaper publisher, is helped to a glass of water by C. Clark Heritage, president of TAPPI.

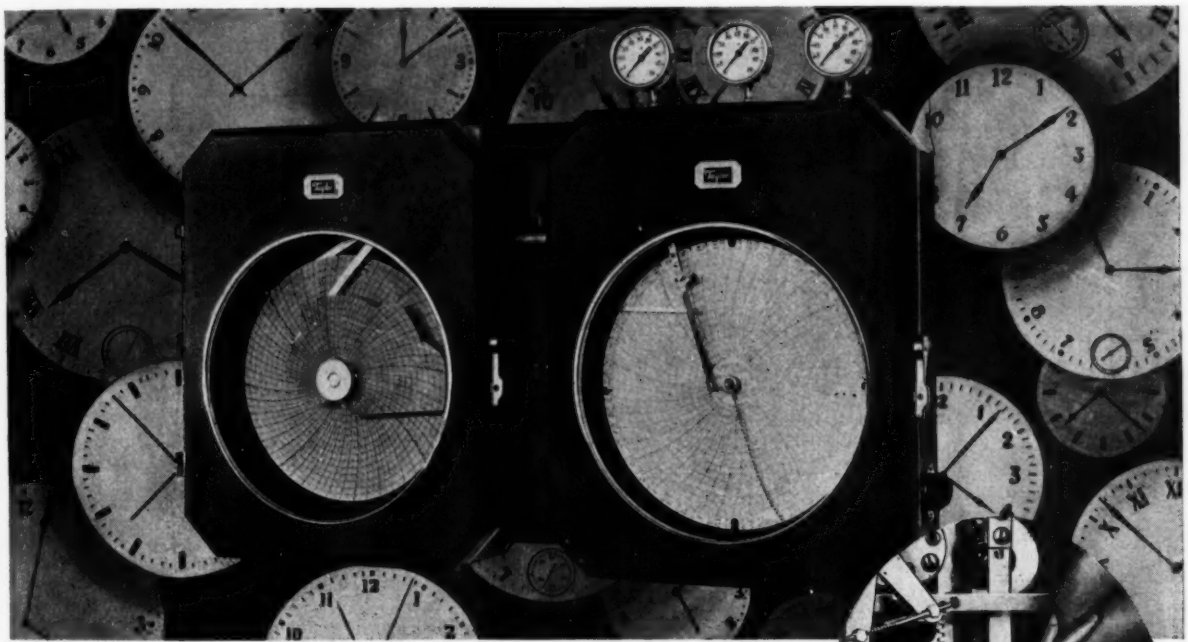
Arc Welder Switch Control

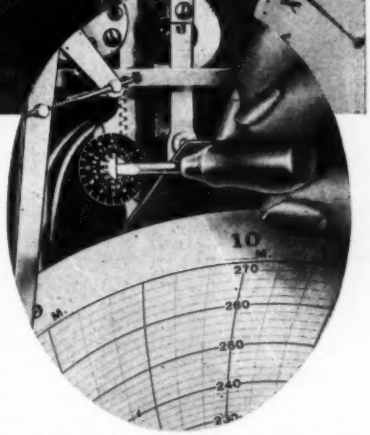
An improvement in electric welding equipment is announced by Miller Electric Manufacturing Company, Inc., Appleton, Wis., manufacturers of "Miller's Wonder Arc Welder." It is a dial switch control that is so simple in construction that with it the electric welder can be operated without directions. Any one able to read figures can operate the welder with absolute safety and efficiency. As illustrated here, the dial switch control has the amperage distinctly marked on the switchboard, indicating each step in welding. Setting the dial at the proper figures gives the operator absolute control of the amperage. Its use also makes the welder easier to operate, stabilizes the arc and prevents sticking.



The dial switch control is so designed that it cannot "short" the electrical circuit between contacts. The operator must place the switch dial in the correct position before the welder can be operated, making this an added safety feature.

Time harnessed by a CAM!





The Cam and the time-schedule mechanism of the Taylor Sulphite Digester Control are in the left-hand case. The Taylor Fulscope Recording Controller, which sees that each step in the cooking cycle is carried out at the time ordered by the Cam, is in the right hand case. A marvelous pair of operatives.

Assure absolutely uniform cooking cycles by automatic regulation of your time-temperature and time-pressure schedule with the Taylor Sulphite Digester Control System

YOU can be certain that the ideal cooking cycle for any particular grade of stock will be followed at any time. You can be sure of getting the maximum production of No. 1 stock at lowest possible conversion cost.

The Taylor System of Sulphite Digester Control does all this, and assures stock uniformity in color, freeness and strength. It gives a stock that felts, forms, and dries well. It reduces "tailing" losses. It cuts losses due to failure of digesters to blow cleanly.

This Taylor System controls and coordinates temperature and pressure exactly. In the steam flow control it even compensates automatically for variations in gas pressures.

The Cam (in the left hand case of the controller) is the absolute regulator of the cycle. It harnesses time. It directs the operations in the processing cycle. Any number of cooking schedules can be used simply by cutting new Cams to suit. And the cycle control is identical every time it is repeated. The Cam assures maximum and economical production.

The ease and certainty with which the Cam and the rest of the Taylor Control System regulate temperature and pressure in the sulphite process is being proved every day. Let us show you how you can use it in your mill.

Ask the Taylor Representative about this system—and others designed specially for paper mills. Or write Taylor Instrument Companies, Rochester, New York. Plant also in Toronto, Canada. Manufacturers in Great Britain—Short & Mason, Ltd., London, England.

Taylor

Indicating Recording Controlling

TEMPERATURE, PRESSURE *and* **FLOW INSTRUMENTS**

Paper Board Production for December

Monthly statistics on Paperboard for December, November, and October, 1935, for 93 manufacturers, with comparisons for previous months for 94 manufacturers, compiled from data furnished by the National Paperboard Association from reports of members, and by manufacturers reporting direct to the Bureau of the Census, are presented in the following tables. One company, reporting prior to October, 1935, discontinued the production of paperboard. These statistics were released by Director W. L. Austin, Bureau of the Census, Department of Commerce.

Rated (24-hour) capacity data for paperboard machines in inch hours in this report are based on last dryer width whereas those shown in the reports for 1932 and earlier years were based on maximum trim width. The capacity data vary according to the normal number of working days in each month.

TABLE 1
INCH HOURS OPERATED, PRODUCTION, AND ORDERS

Year and Month	Operated (inch hours) (Based on last drier width) Rated capacity	Operated	Per cent of capacity	Production (short tons) Rated capacity	Output	Per cent of capacity	New orders (short tons)	Unfilled orders (short tons)
1935								
Jan.	15,455,578	9,793,592	63.4	416,501	262,026	62.9	273,151	80,987
Feb.	13,636,918	9,308,323	68.3	366,598	251,870	68.7	252,578	84,341
Mar.	14,709,922	10,029,490	68.2	398,949	275,770	69.1	268,360	79,049
April	14,901,848	9,543,895	64.0	402,831	260,851	64.8	255,730	79,296
May	15,498,589	9,615,348	62.0	418,324	262,463	62.7	259,995	80,367
June	14,284,978	9,418,123	65.9	385,742	256,665	66.5	248,656	78,020
July	15,592,118	9,397,786	60.3	423,545	260,207	61.4	259,486	78,241
Aug.	15,592,118	10,450,399	67.0	423,545	291,127	68.7	297,349	86,767
Sept.	14,380,430	10,273,750	71.4	390,840	289,596	74.1	307,103	105,088
Oct.	16,108,039	12,404,641	77.0	434,717	345,596	79.5	351,887	107,074
Nov.	13,598,280	10,526,226	77.4	399,897	294,290	73.6	272,477	88,971
Dec.	14,770,746	8,818,058	59.7	400,139	243,594	60.9	234,753	81,894
Total (year)	178,529,564	119,579,631	67.0	4,861,628	3,294,055	67.8	3,281,525	.....
1934*								
Jan.	14,879,791	8,506,259	57.2	406,760	233,182	57.3	220,554	63,665
Feb.	13,227,743	8,475,759	64.1	355,554	227,140	63.9	238,225	75,759
Mar.	15,135,748	9,844,248	65.0	405,206	263,199	65.0	273,298	86,440
April	14,018,872	9,282,387	66.2	376,756	251,324	66.7	237,539	76,867
May	15,274,886	8,716,342	57.1	409,487	231,107	56.4	233,877	81,293
June	14,847,757	8,528,498	57.4	397,005	228,078	57.4	218,369	73,473
July	14,422,003	7,645,095	53.0	395,518	208,252	52.7	207,352	74,088
Aug.	15,442,025	9,116,133	59.0	428,140	250,931	58.6	251,073	72,386
Sept.	14,323,043	8,935,783	62.4	397,277	243,764	61.4	239,196	73,114
Oct.	15,531,484	9,810,027	63.2	417,150	267,456	64.1	259,557	69,198
Nov.	14,893,816	8,614,549	57.8	396,757	229,754	57.9	220,841	62,537
Dec.	14,803,783	7,726,155	52.2	381,419	205,518	53.9	207,589	65,784
Total (year)	176,800,951	105,201,235	59.5	4,767,029	2,839,705	59.6	2,807,470	.....
1933								
Jan.	14,210,696	7,679,402	54.0	392,770	205,326	52.3	207,214	36,065
Feb.	12,560,626	7,572,068	60.3	350,350	205,871	58.8	207,705	38,505
Mar.	15,472,220	8,758,969	56.6	432,799	237,536	54.9	250,480	53,542
April	13,761,134	8,185,670	59.5	384,846	223,845	58.2	236,022	70,099
May	14,888,820	10,418,818	70.0	417,798	287,032	68.7	294,460	76,719
June	13,695,506	10,432,158	76.2	384,283	292,967	76.2	349,650	144,307
July	12,925,903	10,230,022	79.1	358,378	283,272	79.0	268,546	128,638
Aug.	14,403,798	11,228,582	78.0	404,838	312,747	77.3	307,321	118,298
Sept.	12,969,506	9,265,645	71.4	357,093	252,452	70.7	238,771	105,423
Oct.	13,553,121	8,161,859	60.2	380,201	228,416	60.1	185,026	62,177
Nov.	13,711,706	7,523,076	54.9	382,320	206,933	54.1	199,059	55,080
Dec.	13,441,090	6,530,001	48.6	374,054	176,337	47.1	169,116	48,920
Total (year)	165,594,126	105,986,270	64.0	4,619,730	2,912,734	63.0	2,913,370	.....

* Revised.

TABLE 2
CONSUMPTION AND STOCKS OF WASTE PAPER
(85 SELECTED MANUFACTURERS)

Year and Month	Consumption of waste paper (short tons) Capacity	Consumed	Per cent of capacity	Stocks of waste paper end of month (short tons) Total	At plants	In transit & unshipped purchases
1935						
Jan.	359,167	210,812	58.7	245,593	210,520	35,073
Feb.	322,920	211,560	65.5	253,795	214,069	39,726
March	345,236	231,584	67.1	242,157	207,987	34,170
April	347,845	217,300	62.5	244,913	214,680	30,233
May	361,312	219,767	60.8	256,000	222,519	33,481
June	334,875	213,523	63.8	263,229	230,365	32,864
July	366,084	217,934	59.5	280,823	233,784	47,039
Aug.	366,084	246,537	67.3	260,569	228,137	32,432
Sept.	337,395	244,963	72.6	259,418	220,998	38,420
Oct.	373,312	288,668	77.3	255,465	214,685	40,780
Nov.	345,005	246,318	71.4	248,341	213,297	35,044
Dec.	344,705	196,429	57.0	246,298	211,029	35,269
Total (year)	4,203,940	2,745,395	65.3	.....	.....	.....
1934						
Jan.	309,593	173,300	56.0	206,324	178,545	27,779
Feb.	307,577	180,765	58.8	234,605	197,540	37,065
March	380,710	229,772	60.4	237,406	206,060	31,346
April	322,533	197,741	61.3	244,141	215,648	28,493
May	325,006	176,018	54.2	255,584	227,877	27,707
June	397,931	207,476	52.1	237,806	221,836	15,970
July	*429,348	*228,313	53.2	*260,774	*233,048	27,726
Aug.	348,924	208,332	59.7	257,696	232,819	24,877
Sept.	*331,857	*207,766	*62.6	*271,085	*244,467	26,618
Oct.	362,732	230,695	63.6	264,099	231,094	33,005
Nov.	347,053	196,461	56.6	254,705	226,941	27,764
Dec.	*346,978	*173,314	*49.9	243,692	223,692	20,000
Total (year)	*4,210,242	*2,409,953	*57.2	.....	.....	.....
1933						
Jan.	285,564	146,918	51.4	167,621	145,756	21,865
Feb.	280,040	161,683	57.7	158,360	131,225	27,135
March	315,828	178,424	56.5	154,051	128,402	25,649
April	323,300	191,100	59.1	160,605	131,651	28,954
May	350,545	240,223	68.5	138,326	107,149	31,177
June	290,768	234,476	80.6	122,157	93,229	28,928
July	296,243	238,716	80.6	116,798	90,172	26,626
Aug.	335,468	260,154	77.5	128,859	106,252	22,607
Sept.	308,400	220,215	71.4	151,963	131,097	20,866
Oct.	308,462	187,173	60.7	161,899	145,866	16,033
Nov.	308,570	171,913	55.7	194,099	161,118	32,981
Dec.	295,871	147,592	49.9	196,563	175,023	21,540
Total (year)	3,699,059	2,378,587	64.3	.....	.....	.....

* Revised.

Deposit of Brown Co. Bonds Asked

The Charles Francis Adams protective committee for the first mortgage bonds of Brown Company, Maine corporation now in process of reorganization under section 77B, following approval of its deposit agreement by the United States district court, is now requesting that bondholders deposit their bonds with the committee under this agreement. This committee has no connection whatsoever with the committee of which Lee S. Buckingham is chairman, which has recently solicited proxies.

The Adams committee, representing as they do substantial investors in the bonds (to the extent of approximately $2,000,000), are interested to safeguard those investments and to effect a reorganization favorable to the bondholders in the shortest possible time and with the least possible expense.

Bondholders are requested to deposit their bonds with one of the following depositaries: The First National Bank of Boston, 17 Court street; Central Hanover Bank and Trust Company, 70 Broadway, New York; National Bank of Commerce of Portland, 467 Congress street, Portland, Me.; Harris Trust and Savings Bank, 115 West Monroe street, Chicago, and the Royal Bank of Canada, 360 St. James street, West, Montreal. The committee states that this is not the time when bondholders can afford to wait until a plan of reorganization is formulated and urges that bondholders deposit their bonds promptly in their own interests.

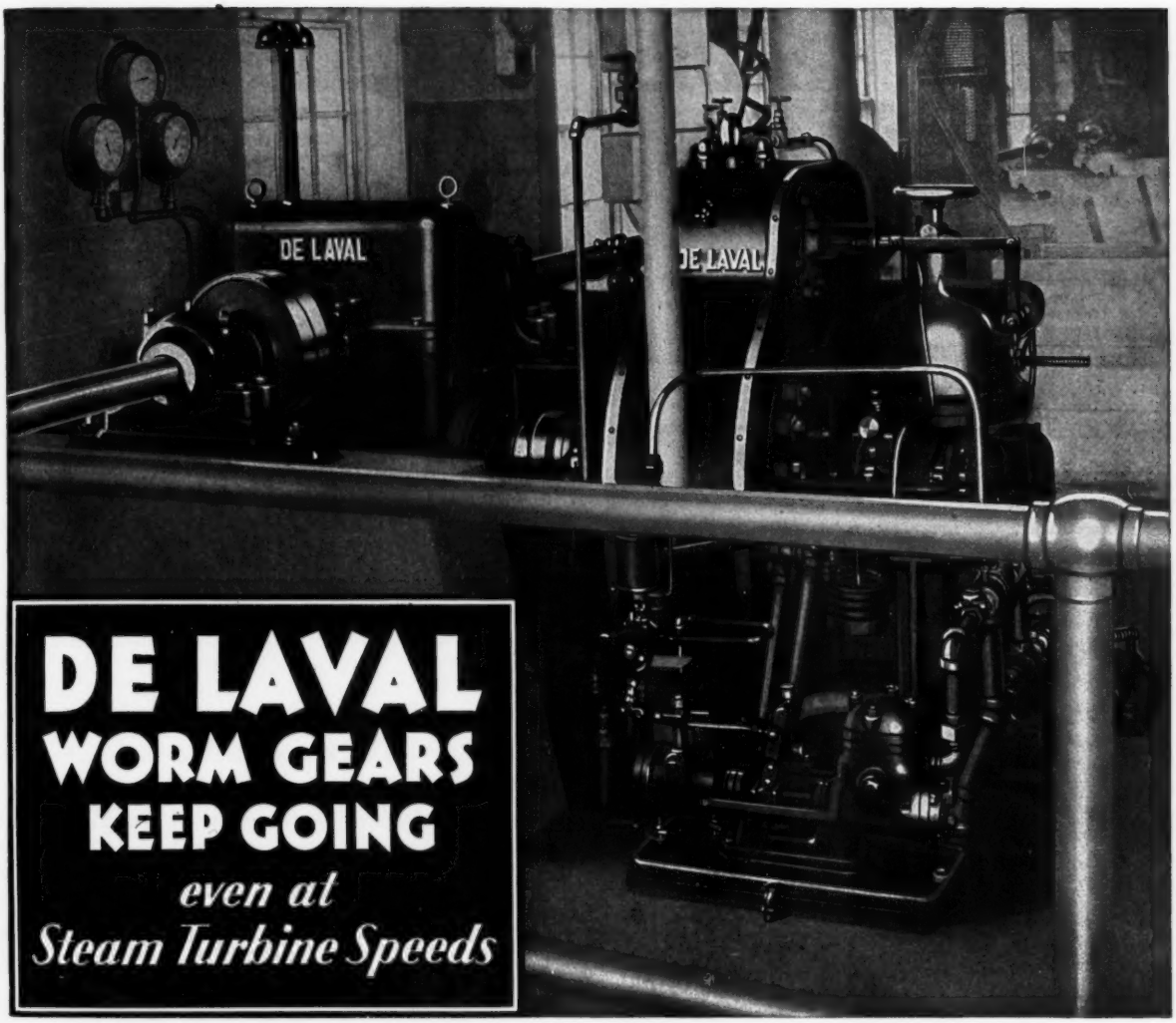
Wellington Smith Dead

PITTSFIELD, Mass., March 3, 1936—Wellington Smith, retired paper manufacturer and historian of Lee, died there of a heart attack today at Oak Shade Farm. He was born at Lee fifty-six years ago, son of Wellington and Annie Bullard Smith.

Graduating from Williams College in 1901, Mr. Smith entered the employ of the Smith Paper Company, which his great-uncle, Elizur Smith, had founded in 1865. He was secretary and purchasing agent for the company until his retirement in 1932. The concern is now controlled by the British American Tobacco Company.

Mr. Smith began writing the history of Lee a year ago after his retirement as chairman of Selectmen.

His widow, a son, Wellington Smith, Jr., of East Orange, N. J., and a daughter, Mrs. Edward S. Thompson of Schenectady, N. Y., survive.



DE LAVAL WORM GEARS KEEP GOING

even at Steam Turbine Speeds

FOR EXAMPLE, one like that shown has transmitted around 300 hp. from a variable speed steam turbine to a paper machine

24 HOURS A DAY FOR OVER NINE YEARS,
but has had no replacements or repairs.

The continuous transmission of large amounts of power at high or low speeds is the duty for which De Laval worm gears have been particularly designed. They are completely enclosed and self-lubricating, requiring no attention other than checking the oil level, and are unaffected by dirt, grit or moisture.

De Laval *Steam Turbine Co.*, Trenton, N.J.

1080

Manufacturers of Steam Turbines, Centrifugal Pumps, Propeller Pumps, Rotary Displacement Pumps, Centrifugal Blowers and Compressors, Worm Gears, Helical Speed Reducing Gears, Hydraulic Turbines, Flexible Couplings and Special Centrifugal Machinery. Sole Licensee of the Bauer-Wach Exhaust Turbine System.

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WHICH WAY AMERICA?

As more and more present national policies are abandoned as failures, or cast aside as unconstitutional, we will have more and more business improvement and more and more private employment, it was asserted in a recent address by Mr. Noel Sargent, secretary of the National Association of Manufacturers.

Mr. Sargent was speaking on the subject, "Which Way America?" with Senator Robert Wagner of New York supporting the contention that the nation should continue to follow its present path, and Harry Laidler, co-director with Norman Thomas of the League for Industrial Democracy, contending for more radical policies. Mr. Sargent presented the conservative answer.

"The first and primary need of the country, in the interests of recovery, prosperity and progress, is the preservation of the economic principles and constitutional guarantees underlying the American system—that is the proper way for America," Mr. Sargent said.

"Is it not significant that industrial progress has substantially advanced in this country since the Supreme Court in the NIRA decision ended the major 'attempted solution'? he asked. "To now say that this progress is due to deliberate planning on the part of government is certainly, to say the least, inconsistent with the former implications of government representatives that the end of the NRA would mean industrial breakdown.

Recent business improvement is, in the speaker's opinion, in spite of, and not because of, government efforts to plan and control private industry and private labor. Here are the facts he advances:

"1. In December 1935 weekly wages were 8 per cent higher than in May 1935 when the NIRA was thrown out —but weekly hours of work were only 38.8, representing an increase of about 7 per cent.

"2. Manufacturing employment increased 5 per cent.

"3. Industrial production increased 18 per cent—and for the first time since the artificial spurt before the NIRA went into effect, reached 'par' or 100 per cent (the 1923-1925 level). Where is the 'chaos' which had been forecast?"

Mr. Sargent declared that it is not a logical position to assert that those who oppose one form of legislation should immediately present an alternative.

"It is far more constructive to expose such measures to the light of experience and subject them to the test of logic," he said. "We can build soundly and surely only upon those principles which have been evolved out of the realities of experience.

"The question today of whether we should go ahead with our present national policy, go to the left of it, or return to the right of it, is fundamentally one of philosophy. The conflicts of philosophy which are involved are essentially three, namely:

"1. Is the ultimate social welfare of the greatest number advanced by making individuals increasingly more reliant on the government;

"2. Do we fundamentally believe that the aims of governmental policy and action should be to establish equality for all, or do we believe that liberty, the right of individuals to work and earn in relation to their differing capacities, is essentially incompatible with equality;

"3. Is the public welfare advanced by providing government economic planning for industry and agriculture;

"4. Do we believe that our federal government should be limited to powers clearly delegated in a federal constitution;

"5. Do we believe that the public welfare is promoted by preserving the states against domination by one central government with consequent bureaucracy and expanded power over all citizens of the country;

"6. Do we believe that federal and state constitutions should provide for recognition and protection of individual rights against encroachment by agencies of government, even at the dictates of individuals?"

Mr. Sargent believes that upon the answer to these basic fundamental problems of philosophic belief will depend our individual answers to the questions as to which way America should go.

He stated it as his firm belief that the revival of private enterprise as an immediate goal and the future maximum welfare of this country depend upon preservation of the American System, and that it can be preserved in the following ways:

"1. By maintaining constitutional guarantees.

"2. By preserving freedom of private enterprise, with maximum freedom for the individual consistent with the freedom and rights of all others.

"3. By seeking security for the maximum number through increased total national production instead of by legislative decree; and finally,

"4. By establishing and maintaining sound government tax and financial policies."

This American System, Mr. Sargent said, has not failed.

It has not collapsed. It did not break down in depression because of weaknesses or evils inherent in the System.

In conclusion the speaker submitted that ample evidence indicates that as we abandon the present national policy and return to the American System that national welfare is promoted.

Pulp and Paper Show

Chairman F. L. Zellers reports a gratifying demand for display space in the Civic Auditorium adjoining Convention headquarters in the Hotel Pantlind, where the most ambitious exhibition of pulp and paper making equipment will be staged during the time of the Convention of the American Pulp and Paper Mill Superintendents Association.

More than a score of leading concerns have already reserved space, according to Mr. Zellers, and he is confident that this show will be so comprehensive as to command the attendance of every pulp and paper mill executive in the United States and Canada.

"We are in hopes of presenting working models and commercial equipment in actual operation," said Mr. Zellers. "The Civic Auditorium is ideally equipped for such an exhibition. Every booth will have adequate supplies of power, water, gas and light, so that exhibitors may put on a display as elaborate as they please. Heavy trucks can move right into the basement of the auditorium building, whence heavy equipment can be moved to the exposition floor by elevator. The fact that the convention hotel is connected to the auditorium by a special passageway, makes this an ideal set up for a combined convention and exhibition. We are confident it will prove to be a most successful effort in the history of the Superintendents Association."

Fire Damages Merchants Paper Co.

[FROM OUR REGULAR CORRESPONDENT]

CINCINNATI, Ohio, February 24, 1936—Six hose lines still were playing late last night into the smoldering interior of the Merchants Paper Company's three-story brick building at 819-21 Broadway, where a fire that caused damage estimated at $80,000 to $100,000 started shortly after 11 o'clock yesterday morning.

Paper goods piled high on the three floors of the office-warehouse flamed for nearly an hour, then smoldered through the afternoon and night while firemen fought to reach the centers of the burning stacks of paper.

The stock consisted of printing papers, envelopes, wrappings, and other grades of fine and coarse papers.

It was a total loss—that part of the paper which was not reached by the flames was reduced to pulp by the torrents which firemen had to pour into the building to reach the heart of the well-entrenched fire.

Complete Field Work on Pulp

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., March 4, 1936—Field work on the pulp investigation which is being made by the United States Tariff Commission as the result of the Borah resolution of the last session of Congress has about been completed, officials of the commission state. Their best guess now is that the complete survey will be ready for Congress in another couple of months. It is understood to be one of the most complete investigation ever been made by the commission.

Production Ratio Report

The statistics based upon paper production reports to the American Paper and Pulp Association.

COMPARATIVE MONTHLY SUMMARIES

Month	1936	1935	1934
January	76.2%	65.8%	.....
February	.....	70.0%	.....
March	.....	70.5%	.....
April	.....	70.0%	.....
May	.....	69.4%	.....
June	.....	72.3%	.....
July (b)	.....	67.8%	.....
August	.....	70.9%	.....
September (c)	.....	75.0%	59.4%
October	.....	75.6%	64.7%
November	.....	75.3%	61.7%
December (a)	.....	74.3%	62.1%
YEAR	.....	71.2%	.....

COMPARATIVE WEEKLY SUMMARIES

CURRENT WEEKS, 1936		CORRESPONDING WEEKS, 1935	
*February 8	77.7%	February 9	69.5%
*February 15	77.1%	February 16	71.0%
* February 22	77.1%	February 23	69.2%

The following statistics show the number of mills reporting by ratio groups:

	Number of Mills Reporting, Current Weeks		
Ratio Limits	Feb. 8, 1936	Feb. 15, 1936	Feb. 22, 1936
0% to 50%	86	90	66
51% to 100%	253	245	196
Total Mills Reporting	339	335	262

* Subject to revision until all reports are received.
These data exclude (a)—Christmas Day, (b)—Fourth of July, (c)—Labor Day.

PAPERBOARD OPERATING RATIOS

According to reports from the National Paperboard Association, per cents of operation, based on "Inch-Hours", were as follows:

1934		1935		1935		1935	
September	62%	January	61%	May	61%	September	69%
October	63%	February	67%	June	65%	October	76%
November	56%	March	67%	July	59%	November	70%
Dec. (a)	53%	April	61%	August	65%	December	60%

Week ending Jan. 4, 1936	51%
Week ending Jan. 11, 1936	65%
Week ending Jan. 18, 1936	61%
Week ending Jan. 25, 1936	64%
Week ending Feb. 1, 1936	63%
Week ending Feb. 8, 1936	66%
Week ending Feb. 15, 1936	66%
Week ending Feb. 22, 1936	66%

Government Paper Bids

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., March 4, 1936—The Government Printing Office has received the following bids for 56,550 pounds (325,000 sheets) of offset book paper; Whitaker Paper Company, 5.75 cents per pound; P. H. Gladfelter Company, 5.75 cents; Jessup & Moore Paper Company, 5.72 cents; Stanford Paper Company, 5.72 cents; Barton, Duer & Koch Paper Company, 5.75 cents; R. P. Andrews Paper Company, 5.72 cents.

For 35,525 pounds (175,000 sheets) of single coated book paper at 6.35 cents; Whitaker Paper Company, Dobler & Mudge, R. P. Andrews Paper Company, Barton, Duer & Koch Paper Company, Stanford Paper Company.

For 58,784 pounds (352,000 sheets) of 50 per cent rag cream white laid cover paper; R. P. Andrews Paper Company, at 12.78 cents per pound.

For 7,800 pounds (50,000 sheets) of lithograph finish map paper; R. P. Andrews Paper Company, at 5.57 cents; Reese & Reese, Inc., 5.57 cents; and Mathers-Lamm Paper Company, 6.07 cents.

The R. P. Andrews Paper Company will furnish 7,800 pounds (50,000 sheets) of 38 x 48 lithograph finish map paper at 5.57 cents per pound, bids for which were received on February 24.

The Cauthorne Paper Company will furnish 200 pounds of re-stereotype molding paper in 24-inch rolls at 12.5 cents per pound, bids for which were received on February 12.

Do your envelopes have "Hiding Power"?

If not, the true function of an envelope is absent. While "hiding power" or opacity is not the sole factor in envelope quality, it is one of the characteristics necessary for high grade appearance and performance.

Envelope stock is only one of the many papers that can be economically opacified and whitened by the use of Zinc Sulphide Pigment.

The Cryptones and the Albaliths are uniform quality Zinc Sulphide Pigments manufactured in many strengths to meet the particular requirements of many papers.

Our Technical Service Staff will be glad to assist you on any problems in this work.

THE NEW JERSEY ZINC COMPANY
160 FRONT ST., NEW YORK

ZINC SULPHIDE PIGMENTS IN PAPE

Section of the
Technical Association of the Pulp and Paper Industry
Edited by Ronald G. Macdonald, Secretary

Pulp and Paper Industry Literature Review

Abstracts of Articles and Patents Compiled by the Abstracts and Bibliography Committee of the Technical Association of the Pulp and Paper Industry, A. Papineau-Couture, John F. Ohlson, C. E. Peterson and Clarence J. West, Chairman

Copies of United States Patents can be obtained from the United States Patent Office, Washington, D. C., for 10 cents each. Send currency, not stamps.

Cellulose and Lignin

Progress in Cellulose Chemistry. D. Kruger Zellstoff Papier 15, No. 2: 50-52; No. 3: 89-92, (Feb., March, 1935).—By means of numerous references, the author briefly relates facts and results of work down on the chemistry of cellulose by investigators throughout the pulp and paper manufacturing countries.—J. F. O.

Effect of Pretreatments of Wood on the Lignin Determination. Distribution of Methoxyls in Wood. George J. Ritter and James H. Barbour. Ind. Eng. Chem. (Anal. Ed.) 7: 238-240 (July 15, 1935).—The amount and nature of extraneous compounds that are incompletely removed by preliminary extraction affect the accuracy of the lignin determination. Successive extractions with 95 per cent alcohol, alcohol-benzine, and hot water appear well adapted in North American woods. The type and the amount of extraneous material should determine the pretreatment; *e.g.*, in the absence of catechol tannins alcohol extraction is unnecessary. In redwood, about 17.7 per cent of the total methoxy of the wood is in the extraneous matter, 73 per cent is in the lignin, and 9.3 per cent is in the holocellulose. The corresponding peercentage distribution in the case of white oak is 7.4, 71.3 and 21.3 per cent, respectively.—A. P. -C.

The Hemicelluloses Extracted from Mesquite Wood After Chlorination. Lila Sands and Pauline Nutter. J. Biol. Chem. 110: 17-22 (1935).—Delignification of mesquite wood was accomplished by chlorine gas and ammonium hydroxide. Over one-half the hemicellulose becomes soluble in 10 per cent sodium hydroxide after delignification. In progressive hydrolysis of the hemicellulose the methoxyl group remains associated with the fragment of the hemicellulose that contains the uronic acid, indicating that the methoxyl group is attached to the uronic acid since the latter failed to yield potassium acid saccharate on oxidation. The uronic acid nucleus does not lose the last two pentoses even after boiling for 30 hrs. in 2.5 per cent sulphuric acid. Xylose was the only sugar of quantitative importance found in the hemicellulose. Oxycellulose was found after four chlorination but oxidation of the cellulose by chlorine was negligible until after delignification was complete. The hemicellulose was more complex than that isolated before delignification but it was impossible to estimate the molecular species in the hemicellulose.—A. P. -C.

The Alkaline Oxidation of Lignin. Arthur Wm. Walde, Iowa State Coll. J. Sci. 9: 205-207 (1934).—Ammonia lignin was prepared from cornstalks by: (1) cooking for 8 hrs. at 100 lb. steam in concentrated ammonia, (2) precipitating the lignin and pentosans with acid and (3) removing the pemtosans by hydrolysis with weak acid. When oat hulls were used the penosans were hydrolyzed first. When lignin was oxidized with alkaline hyphalite: the —OCl gave indefinite results, the —OI produced iodoform and lignin with a methoxyl content of 7.2 to 7.4 per cent and ash content of 0.5 per cent. Methylated lignin did not oxidize in alkaline iodine solution and nitrolignin could not be oxidized quantitatively. Sulphuric acid lignin from spruce, aspen and oat hulls had odine equivalents of 68, 112 and 160, respectively. Oxidized oat hull lignin containing 7.23 per cent methoxyl contained 22.19 methoxyl after methylating with dimethyl sulphate. The product was insoluble in 10 per cent caustic soda below 80° C. When dissolved in sodium hydroxide at 90° C. and reprecipitated by dilute sulphuric acid, the methoxyl content was 17.4 and the iodine content 10.5 per cent. The minimum molecular weights from methoxyl content and iodine content are 1210 and 600, respectively. There must be 2 carboxyl groups for each iodine atom. A table gives a comparison of the lignins from oat hull, rye straw, flax straw, artichoke stalks and corn stalks.—A. P.-C.

Lignin. XIV. Further Investigation of Lignin. Karl Freudenberg, Ferdinand Sohns and Alfons Janson. Ann. 518:62-85 (1935).—Details are given of the extraction of lignin from wood meal by cuprammonium hydroxide solution in 16 per cent yield of the air-dry wood; the usual yield with 66 per cent sulphuric acid is 25 per cent. The lignin contains 16 per cent methoxyl; on distillation with 12 per cent hydrochloric acid lignin gives 0.9-1.1 per cent formaldehyde; after meth-

ylation the lignin contains 29 per cent methoxyl and 2.4 per cent of hydroxyl groups; the hydroxyl group cannot be methylated and must be present in lignin as $MeCR_2OH$; this explains the formation of six per cent acetic acid on oxidation of lignin with chromium trioxide. Stepwise cooks at increasing temperatures yield ligninsulphonic acids with practically the same methoxyl content (14.5 per cent) but different sulphur contents (5.1-6-8 per cent.). On cooking with lignosulphonic acids with 3.8-4 per cent sulphur with sulphite liquor, the sulphite content is increased to 5.4 per cent. In these acids there is present one phenolic hydroxyl group per three lignin units (the unit having a molecular weight of 180.) Potassium hydroxide fusion of lignin gives 10 per cent of protocatechuic acid. Methylated lignin and ozone give oxalic acid and other water-soluble products, methylation of which yields a compound (not pure), analyzing for $C_8H_{14}O_6$. Other oxidizing agents, as well as reduction of lignin with iodine, phosphorus and water, gave no definite results. The polymerization of coniferyl alcohol and its relation to dihydroisoeugenol and lignin are discussed.—C. J. W.

Constitution of Lignin and the Chemistry of the Sulphite Cooking Process. B. Holmberg. Papir-J. 23, no. 8:81-84; no. 9:92-96 (April 30, May 15, 1935).—A review of the different theories of the constitution of lignin and of the formation of lignosulphonic acid is given. The author believes that his experiments with thioglycolic acid indicate the presence of a carbonyl group in lignin; however, further experiments would suggest the presence of a tertiary alcohol, which reacts either by esterification or by the formation of a substituted thioglycolic acid. H. compares the reaction of thioglycolic acid with that of sulphurous acid and postulates a concept for the formation of the different lignosulphonic acid.—C. J. W.

Alkaline Processes

Production of Light Papers from Chaff-Containing Flax Hemp Rope. S. S. Kharaz and S. E. Gornostaipol'skii. Bumazhnaya Prom. 14, no. 3:69-72 (March, 1935); C. A. 29:5267.—Tar- and fat-free flax-hemp rope ends, containing 25-30 per cent of coarse chaff, were freed from the greater part of chaff by a combing process, cooked with 5 per cent sodium hydroxide and 10 per cent calcium hydroxide at 0.8 atmosphere for 3 hours and then at 3.5-4 atmospheres for 9 hours and bleached with 4 per cent of active chlorine within 3.5-4 hours; a 42 per cent yield of pulp was obtained, which gave satisfactory grades of cigarette and electric condenser paper.—C. J. W.

Production of Briquetted Straw Halfstuff at (beet) Sugar Plants. L. A. Skul'staya and S. Ya Gerasimov. Bumazhanaya Prom. 14, no. 4:19-29 (1935); C. A. 29: 5299.—Technical and economical aspects of utilization of the facilities and equipment (diffusion batteries) of a beet-sugar mill during the idle seasons for straw pulping are discussed. A method for experimental procedure and a proposed layout are described.—C. J. W.

Process for the Manufacture of Pulp. Metallgesellschaft Akt. Ges., Frankfurt a.m. Ger. pat. 612,941 (Sept. 23, 1932), Addition to Ger. pat. 601,271. The milk of lime is first pumped into the cooker, preferably from below, and after the cooker is heated to about 100° C., liquid or gaseous sulphurous dioxide is introduced and the cook carried to completion.—J. F. O.

Process for the Manufacture of Half Stock from Flax, Hemp or Jute Waste. Friedr. Frisch, Dettingen. Ger. pat. 612,730 (March 29, 1933).—The waste products are treated with milk of lime for several days and then stamped until the greater part of the incrustants are freed from the fibers. The fibers are then cooked under pressure with the hydroxides of the alkaline earths. —J. F. O.

Manufacture of Alpha-Cellulose. J. S. Pou. Brit. pat. 430,259 (Dec. 15, 1933).—Plants of the order Gramineae, *e.g.*, bamboo, after cutting and air-drying are treated with running water, disintegrated to a kind of tow, boiled with caustic soda and a reducing agent at 1.5 to 2 atmospheres pressure and washed with hot water. The pulp is then digested with caustic soda, sodium sulphide, sodium sulphite and guaiacol for 1 hour at 156°C. under 5.8 atmospheres pressure, and for a few hours at 140° to 143° C. under 4 atmospheres, and is washed first with water emulsified with benzene and afterwards with water alone; it is next oxidized with sodium hypochlorite, washed, treated with hydrofluoric acid, washed, treated with sodium sulphite at 60° C. under 2 atmospheres pressure, washed, bleached with sodium peroxide or hydrogen peroxide, washed, and converted into solid form.—A. P.-C.

Smelting Furnace for Black Liquor. Alfred G. Kerwin assignor to Mosinee Paper Mills Co. U. S. pat. 2,004,205, (June 11, 1935).—The invention provides a combined combusting and smelting furnace which performs the functions of both the rotary furnace and the reducing furnace.—A. P.-C.

Chemical Pulping Process. George A. Richter assignor to Brown Co. U. S. pat. 2,007,024, (July 2, 1935).—In the kraft pulping process the chips are impregnated with recovered green liquor and are then cooked with the usual cooking liquor.—A. P.-C.

Application of Diesel Engines to the Paper Industry*

By T. A. Burdick[1]

Abstract

The field of application of Diesel engines in the Paper Industry are roughly outlined; characteristics of the engines are discussed; brief mention is made of installation detail, and finally costs are given. The technical men of this industry will decide where and when additions are to be made to their power generating equipment. In the course of their plans for future improvements it is more than likely that fuel oil and Diesel engines will be discussed. The men of the Diesel industry are going to be ready for that occasion and there will be no difficulty in obtaining full details of the accomplishments and possibilities of the diversified types of engines which are now available. It should

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be noted that although Diesel engines have been manufactured and sold in this country for upwards of 30 years, research and development work still go on and are now effecting more important improvements than ever before.

To the majority of people who are familiar with the adaptability and the universal use of steam generated power in the manufacture of paper, a suggestion that the use of Diesel power might improve production economy in the industry will probably be received with skepticism.

Steam may be used twice in the paper mill heat cycle, first as a means of developing power, and subsequently as a heating and drying medium. It may be generated, furthermore, from any available fuel. Insofar as the amount of steam required for heating and drying corresponds to the throttle flow required for power generation there exists the most perfect possible combination in industry for utilization of heat.

It so happens however that the ratio of kilowatt hours used to pounds of steam required per ton of paper is not fixed. It varies with the process, with the sheet, with the drying system used, with the condition of the atmosphere, and with the season of the year. When the ratio is comparatively low the efficiency of the steam generating units is of no consequence. As it increases however efficiency becomes more and more important. Eventually a point is reached beyond which there will either be an excess of exhaust steam, which must be wasted, or a part of the power must be obtained from some primary source.

The field of application for Diesel engines in the paper industry is probably limited to those situations in which primary power is needed, although 1 to 2 pounds of steam per kilowatt hour may be generated from waste heat in the engine exhaust by means of exhaust gas boilers, and a certain amount of low grade heat may be recovered from the jacket water.

Steam and Energy Requirements

From the small amount of data at hand on steam and energy use in paper mills, the following rough figures have been separated out:

Kind of Paper	K.W.H. Per Ton	Lbs. Steam Per Ton
Chip Board	235-270	9000-11500
Liner Board	425-500	9000-10000
Newsprint	.....	6000-10000
Writing Paper	.....	6500-7000
Magazine Paper	832	21800

The steam consumption is influenced much less by the sheet than by the heating and drying system and local conditions at the mill. Variations in consumption may run as high as 33 per cent due to varying degrees of efficiency in the use of the steam. There is likely to be 2000 pounds of steam per ton difference between winter and summer operation. Pressure required in the driers varies all the way up to 40 pounds, depending on the sheet.

Energy use per ton of paper seems to be affected considerably by the particular equipment in the mill and also by local technique in operation.

The figures on energy used and steam consumption are not exhibited as an accurate reference, but rather as an indication of where one might best look for a proper location for installation of a prime mover of high thermal efficiency and moderate cost, in conjunction with byproduct steam generating units. For maximum economy in such an installation the electric load on the steam units should be limited to that amount which will produce just enough exhaust steam for heating and drying. The balance of the load should be carried on the Diesel units, the thermal efficiency of which can be raised above 50 per cent by utilizing waste heat from the water jackets and from the exhaust for heating boiler feed and beater water.

Primary Power Heat Rates

No thermal process of power generation within the limits of practical application in a paper mill will equal Diesel performance. This statement may be accepted or it may be investigated, but a vast accumulation of Diesel plant operating data obtained and published by the Oil and Gas Power Section of the American Society of Mechanical Engineers shows plant heat rates of 11,000 to 12,000 B.t.u. per k.w.h. for large engines and small ones, when the engines are operating at or near the rating point. When operating engines at an average of 75 per cent of rating the heat rate will be increased only from 6 to 8 per cent.

Steam generated primary power from turbines operating at or near the rating point may be had under the conditions and at plant heat rates indicated below.

600 POUND 750 DEG. F. INITIAL PRESSURE AND TEMP.
1 INCH HG. ABS. CONDENSING PRES.

	B.t.u. per K.w.h.
Rakine cycle	14,900
Regenerative feed heating—1 stage	13,800
Regenerative feed heating—2 stage	13,400
Regenerative feed heating—3 stage	13,250
Regenerative feed heating—4 stage	13,200
Regenerative feed heating—4 stage plus 4 stage air preheating	12,750

If Diesel heat rates are to be equalled or approached in the turbine plant, conditions must be changed by one of the following means or by some combination of them:

(1) By a large increase in steam temperature.
(2) By a moderate increase in steam temperature coupled with a large increase in pressure.
(3) By means of a re-heating arrangement coupled with a large increase in pressure.

In view of the higher cost of the plant under any one of the above conditions, and the undesirability of attempting to operate it where any appreciable amount of make-up water is required, it would seem that 600 pounds 750 degrees F. initial pressure and temperature represented about the practical limit for paper mills.

Diesel Characteristics

Where the amount of prime power required is considerable, as seems to be the case in many mills, and where the relative cost of Diesel fuel as compared to boiler fuel is not too unfavorable, power from Diesel engines is likely to be more economical and more satisfactory than power from any other source.

The high thermal efficiency of the Diesel engine is inherent and characteristic. It requires no special or complicated auxiliary apparatus to make it possible, nor must the local conditions in the power plant be particularly favorable. Moreover Diesel engines will maintain their high efficiency year after year as long as a reasonable maintenance schedule is adhered to. Another useful characteristic to be remembered when making heat power studies is the flatness of the Diesel fuel economy curve. Operation of a Diesel engine at reduced loads does not necessarily mean a large sacrifice in economy. At half load the economy may be 80 per cent of that at full load, and at 75 per cent load the economy will be about 94 per cent of the full load figure.

While proper conditioning or handling of cooling water is quite essential for satisfactory operation of Diesel engines, the water problem is in no sense acute with this type of prime mover. It is extremely rare to find situations in which the mineral content, gases or suspended

matter in the water available for cooling is of such nature or in such concentration as to make Diesel operation difficult or unsatisfactory.

Low temperatures for the cooling water are not at all necessary. Although nearly one third of the heat energy in the fuel is removed from the engines by the cooling medium, this transfer may be effected safely and economically at temperatures as high as 150 degrees F. Low temperature rise through the jackets is of much more importance than low temperatures, in fact it is better to cool with water going to the engines at higher than 100 degrees F. If the raw water available for cooling contains deleterious matter it may either be strained, softened and filtered, or it may be made to do the cooling without direct contact with the engine jackets by use of a closed cooling system.

Reliability

A stranger to Diesel engines would naturally be much interested to know to what extent they may be depended upon for the 24 hour continuous service day after day which is characteristic of paper mill operation.

Reference to the A.S.M.E. report on Diesel engines for 1934 elicits the following information. Out of a total of 227 engines which had operated 1000 hours or more during the year and for which complete data was available, 211 had had no more than one or two forced shut-downs, and 157 had had none whatever. Many of the engines reported on had operated from 5000 to 7500 hours during the year. Two had operated over 8000 hours. The average age of these engines was 6½ years. Thirty-nine of them had been in service for more than 10 years and one in the group was 23 years old. The 23 year old engine had operated 1982 hours and reported no forced shutdowns, and its fuel economy was 12.35 k.w.h. per gallon at an average load of 80.5 per cent of rating.

The A.S.M.E. report certainly speaks well for Diesel prime movers as a whole. There are black sheep in the flock, however, which are sharp reminders that one cannot buy, install and operate engines and enjoy satisfactory results therefrom without the exercise of wisdom and discrimination. The Diesel label is no guarantee of perfect performance. Such results are only attained as a result of careful selection of equipment, proper application, suitable installation and, last but not least, intelligent maintenance and handling.

Recommendations to govern selection of engines for particular services and for their operation are abundantly available in texts and in specialized periodicals. The sales organizations of the Diesel industry are also contributing notable technical services. It is not proposed to go into such details here except possibly to say that for paper mill work where loads are steady and continuous one should select engines which are conservative in design and moderate in speed. One need not go wrong with his Diesel installation, but after all there is no reliable substitute for the services of a capable and experienced engineer.

Speed Regulation

Since steady frequency is highly important in paper mill operation the speed of the prime movers must be under close control. By use of oil actuated hydraulic governors, which are coming into quite general use on Diesel engines, the following results may be accomplished:

1. Governing may be made sensitive to speed changes as small as one in ten thousand.
2. Dead beat action is assured due to a compensating mechanism in the governor, and instantaneous speed variation due to load change may be stabilized with a single oscillation.
3. Engine speed may be maintained isochronous, if desired, without loss of stability.
4. Speed droop may be adjusted at any time to suit paralleling requirements. Two or more engines may be made to balance a load properly between them with speed droop limited to about 0.5 per cent.
5. Speed of a non-isochronous prime mover may be held steady by paralleling with an engine having an hydraulic governor, provided the latter has sufficient capacity to absorb all variations in load.
6. Speed of the engine may be varied under load, or it may be adjusted at any time for synchronizing or load balancing.

Exhaust Heat Recovery

Brief mention has been made of heat which may be recovered from Diesel engine water jackets and from the exhaust. If one is to realize the full possibilities of a Diesel engine and attain the coveted 50 per cent thermal efficiency, some of the waste heat must be utilized. In a paper mill the most logical places to absorb the excess heat are in the boiler feed water, the beater water and/or in space heaters.

Heat from the jackets must be taken at temperatures below 150 degrees F. From this source there is available 2000 to 2500 B.t.u. per b.h.p. per hour with the engine running at full load. At partial loads the heat per b.h.p. increases. At half load it may be as high as 3000 B.t.u. Variations in type and size of Diesel engines account for the considerable variation in amount of heat carried away by the jacket water. The hot jacket water may be discharged into the boiler feed water heater and/or into the save-all tank. Since the jackets should have nothing but non-scale forming water, the jacket water should be suitable for boiler feed.

Exhaust gas boilers provide an opportunity for salvaging heat either as hot water or as steam. Naturally the lower the temperature at which this heat may be utilized the greater the recovery will be. Using the exhaust gas boiler as a water heater, feed water for the steam boilers may be heated above 212 degrees by passing it under pressure through the heater and thence to the boilers. As an alternative to this arrangement the exhaust boilers may be used to generate steam which could be utilized in space heaters around the mill. Data relative to the amount of heat recoverable from engine exhausts is given in the accompanying table.

$Q = W c (T_1 - t_2) E$

Q = B.t.u. per B.h.p. per hour
W = Lbs. of gas per hour. 16 for 4 cycle, 23 for 2 cycle engines
c = Specific heat of the exhaust gas = .25
T_1 = Temp. of gas going to heater. About as follows:

	2 Cycle	4 Cycle
Full load	500	700
¾ load	400	600
½ load	300	500

t_2 = Temp. of steam or water from the heater
E = Efficiency of the heater. Note: 60 per cent is a reasonable design figure but 90 per cent can be actually attained.

Relative Amount of Heating Surface	E
0.5	12
1	22
2	39
3	52
3.8	60
4	62
5	69
6	75
7	80
8	84
9	87
10	90

Foundations

Modern Diesels, being of the vertical pattern and carefully balanced by the manufacturer, do not offer any severe problem in anchorage. Foundation area is determined for the most part by the outline dimensions of the engine-generator unit. Usual depth will be supplied by the manufacturer. Unit bearing pressures are always found to be low, (about half as much as the average man will exert on his heel when walking) and unless some unusual condition is found, such as spongy or water logged sub-soil, there is no need of spreading the foundation.

Before passing judgment on the sub-soil it is well to open the bearing area to the proposed depth by excavation. If there is any doubt as to the bearing capacity of the soil it may be advisable to spread the load of two or more engines on a common reinforced concrete slab poured at the depth originally contemplated, foundation blocks to be erected on the slab. Isolation of engine foundations from each other is not essential although it is desirable if condition of the soil will permit. Increasing the depth of a foundation will rarely accomplish any good. Better bearing at greater depth is best utilized by means of piles. Needless to say the concrete of the foundation should be of good quality, although a rich mix is not required.

Plant Layout

When the right engine has been selected for the right job much has been accomplished. Details of the installation, however, and the selection of auxiliaries are important.

In laying out a Diesel power plant the modern trend is towards a unit arrangement of auxiliaries. Each generator will have its own exciter and voltage regulator; each engine will have its own cooling water pumps, and fuel run tank and an independent lubricating oil circulating, cooling and purifying system. Auxiliary services common to all engines in a plant will be confined to the starting air equipment, the fuel storage, and possibly a cooling tower. Advantages of the unit system are compactness and simplicity of layout and ease of operation.

If the water available for cooling the engine jackets contains over 5 grains per gallon of encrusting solids its hardness should be reduced by means of a softener or a closed cooling system, as previously mentioned, should be installed. In the closed system the jacket water is circulated round and round from a sump tank, through a tubular cooler, through the engine and thence back to the sump tank. The small amount of water in this closed circuit is usually softened but in any case there is very little opportunity to lose any of it and consequently small opportunity for bringing in enough of the encrusting solids to cause any appreciable amount of scale in the engines. Scale on the cooling surfaces is an insulator, causing elevation of the temperature in cylinders, pistons and valves, affecting lubrication and finally resulting in a train of disastrous consequences. It can easily be avoided and should be.

In the closed cooling system heat is transferred from the jacket water to the raw cooling water in the cooler, which is usually of shell and tube construction, the jacket water passing through the shell and the raw water through the tubes. If the raw water tends to produce scale it is only necessary to open the cooler and clean out the inside of the tubes. In a paper mill the raw water would normally be taken from the mill supply main.

The best place to store fuel oil around a paper mill is in underground steel tanks. If fuel shipments are received by railroad the safest way to unload is by pumping or syphoning through a pipe inserted in the dome of the car. Truck deliveries are usually handled by a pump mounted on the truck. Underground storage is the safest and it also has the advantage of keeping the fuel at moderately high temperatures during the cold weather when it might become too viscous to flow from above ground tanks unless heat were applied.

Fuel is transferred from storage into the power plant by means of a positive displacement pump which discharges into the individual engine run tanks, a large overflow and return line being provided to return to storage all excess which may be pumped after the tanks are filled. The run tanks are usually elevated for gravity flow of fuel to the engines, and their capacity is limited to from 50 to 200 gallons to comply with fire insurance regulations.

The engine exhaust is customarily muffled to reduce noise in the power plant and its surroundings. If an exhaust gas boiler is used however the muffler can be dispensed with. The exhaust pipe should be short enough and of sufficient diameter to keep the back pressure on the engine below 0.5 pound per square inch.

The air intake pipe may be muffled, but on a four cycle engine the muffler is hard to justify unless unusual quiet is desired. On two cycle engines of the pump scavenging type the muffler is quite desirable. No matter how clean the atmosphere may seem to be, no Diesel engine should be permitted to breathe through an open pipe. A large assortment of different air filters are available. They aren't too expensive to buy and they'll keep a great deal of dirt out of the cylinders and out of the lubricating oil. The dirt tends to foul valves and piston rings and to accelerate cylinder and ring wear. The air intake pipe should be ample in size to limit pressure drop at maximum velocity to about 1 inch of water.

Plant Cost

It might be of interest to know a little something as to the cost of Diesel installations. For the most part cost data is rather unreliable and subject to variation due to local conditions in the power plant and to fluctuations in the prices of equipment. With this thought in mind the following figures are submitted as being fairly representative of costs during the past few years. They are based on detailed estimates and not on any assumed unit cost figures. No allowance has been made for engineering or supervision of installation or for any other overhead items. No land or structures are included in the cost but foundations for all equipment are provided.

INSTALLED COST OF COMPLETE EQUIPMENT FOR 3-UNIT DIESEL PLANTS

Total H.P.	Net K.W.	Cost—Dollars Engines	Elec. Plant	Aux. & Acces.	Total	Per H.P.	Per K.W.
1200	800	68,300	17,650	15,350	101,300	84	126
1500	1000	83,600	19,900	18,240	121,740	81	122
1800	1215	94,300	20,500	20,850	135,650	75	110
2400	1640	122,100	23,550	25,250	170,900	71	104
3200	2210	151,250	24,600	32,100	207,950	65	94
3600	2500	166,760	27,400	32,950	227,110	63	91
5400	3750	249,150	39,200	40,200	328,550	61	88

NOTES:
H. P. figures are engine ratings at sea level.
K. W. figures are engine ratings from which generator and excitation losses, and auxiliary power requirements have been subtracted.
No allowance has been made for administrative expense or any other overhead items.

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R. R. Baker, Westinghouse Electric & Mfg. Co., East Pittsburgh, Pa. and John Rhoades, The Mead Corp., Chillicothe, Ohio, for their assistance.

Testing of Wood Pulp for Moisture*

By F. W. Brainerd[1]

Abstract

Several lots of baled dry sulphite pulp were sampled by both the disc method (T 210 m) and the modified wedge method (British). The disc method was found to give results from 0.31 per cent to 0.53 per cent higher than the other, with an average for the four lots of 0.43 per cent. It is concluded that this difference arises from errors inherent in the disc method.

Moisture distribution studies on a number of bales of dry sulphite and moist groundwood showed the moisture content of sulphite to be higher, and of groundwood to be lower at the center, than at the top and edges of the bales.

Moisture tests made at one-inch intervals through more than fifty bales of five brands of dry sulphite, showed the centers to be wetter than any part of the bale within three inches or less of the top, with only one exception.

Suggestions are offered for improving the disc method of sampling to attain greater accuracy and a method proposed for reconciling the differences between the disc and wedge methods.

It is quite generally admitted, in Europe at least, that the disc method (T 210 m) *(1)* shows the air-dry pulp content of baled dry sulphite pulp to be about 0.5 per cent higher on the average than the modified wedge method (British) *(2)* shows on the same sample. Because the wedge method requires the taking of a sample which is truly representative of all parts of the bale, permitting no approximations for the sake of convenience as does the disc method, there is ample reason to believe that the wedge method gives the correct air-dry pulp content, and that the Disc Method is in error by 0.5 per cent. If this is true, the subject of moisture testing deserves the attention of every purchaser of pulp; this difference means $15,000 per year to the writer's company alone, an item which, incidentally, is included in our pulp budget.

Comparison of Wedge and Disc Methods

An unpublished letter written in 1929 to James d'A. Clark from Victor G. Jackson, an experienced British approved pulp testing chemist in London, is very illuminating. The letter reads in part:

"The sampling of such (stored) bales . . . by the American boring method thus becomes unreliable. Since obviously rain-wetted bales will be rejected, most of the bales tested will have been 'damaged' by drying off, and, this being so, the boring method will always tend in favor of the pulp manufacturer, since the wetter inside portion will be left unsampled. In fact (for this reason) many pulp makers inform me that they get no claims from America on the same pulp as is sent to Great Britain and claimed on. One pulp mill told me they made a trial, making a run of bales and sending them alternately as made, one to compose a cargo for America, and the other to make up a cargo for England. The American cargo was tested by two chemists at Boston with the result of its being found to contain excess fibre, while the English cargo resulted in a claim, subsequently substantiated by one of the testers in London. They also say that tests made at Newport News in a warmer climate are more in their favor than those made in Boston."

To provide some direct evidence, four lots of European sulphite were sampled by both methods. Each bale was weighed to make sure that it was neither abnormally heavy nor light, and was then sampled immediately by both methods. The results are shown in Table I.

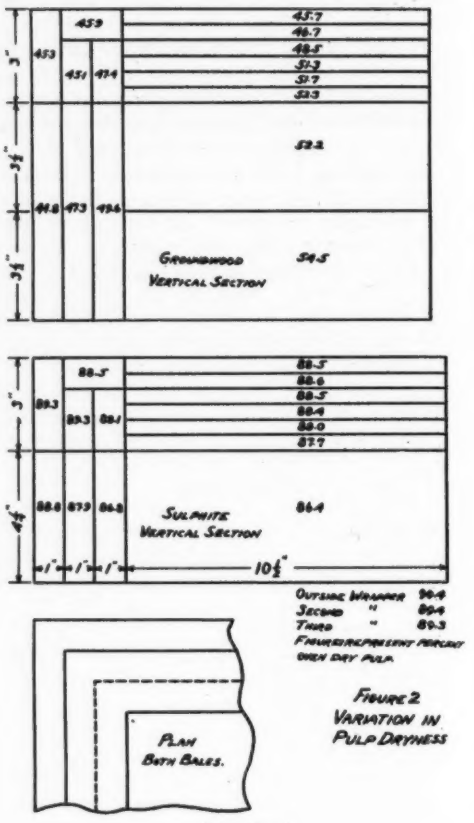

FIGURE 2
VARIATION IN PULP DRYNESS

FIG. 2

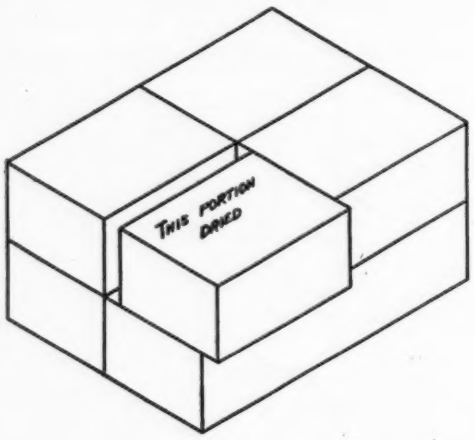

FIG. 1
Moisture analysis sample.

* Presented at the Annual Meeting of the Technical Association of the Pulp and Paper Industry, Waldorf-Astoria Hotel, New York, N. Y., Feb. 17 to 20, 1936.

[1] Member TAPPI, Control Engineer, Scott Paper Co., Chester, Pa.

The average difference for these four lots was 0.43 per cent. Although this is less than the 1 per cent permitted by trade custom, it appears to be a constant, not an accidental error and so, if possible, should be eliminated.

TABLE I—COMPARISON OF WEDGE AND DISC METHODS

Brand	No. Bales	Average Weight	Per Cent Air-Dry Disc	Per Cent Air-Dry Wedge	Difference
X	26	429.9	93.53	93.00	−0.53
X	41	430.3	93.60	93.29	−0.31
Y	29	374.4	99.40	99.04	−0.36
Z	26	437.0	96.50	96.00	−0.50

Moisture Distribution Studies

The best method to determine the source of this difference seemed to be to make moisture distribution studies on a number of bales of pulp. Each bale was bisected along three planes, then one of the eight sections was cut up on a guillotine cutter and the individual samples weighed and dried. Fig. 1 shows how the sample was taken.

Two schemes of cutting were used. The results from typical bales are drawn to scale in Figs. 2 to 4, and are self-explanatory. The figures represent the percentage of oven-dry pulp.

In every case the center has an appreciably different pulp content from the top and edges of the bale. The outer portions, particularly the corners, of the sulphite bales, are dryer than the center; the outer portions, particularly the edges, of the groundwood are wetter than the center, a condition caused, no doubt, by the manner of pressing. But whether the center is wetter or dryer than

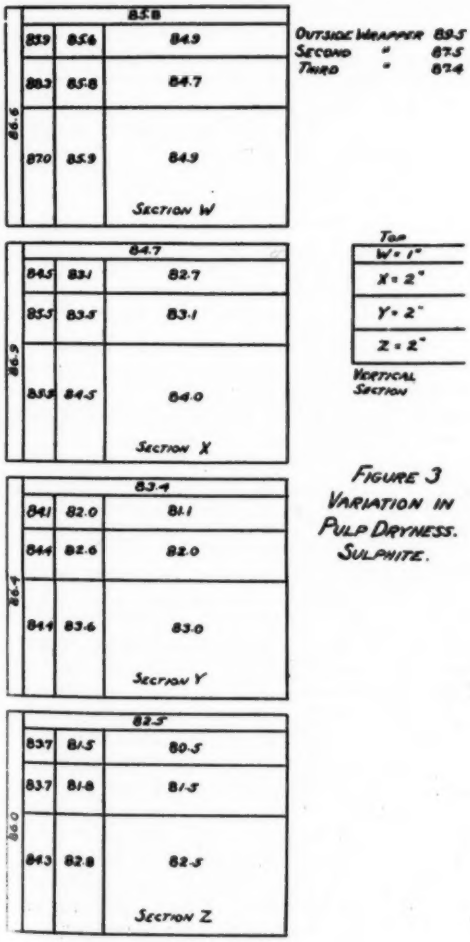

FIG. 3

FIGURE 3
VARIATION IN
PULP DRYNESS.
SULPHITE.

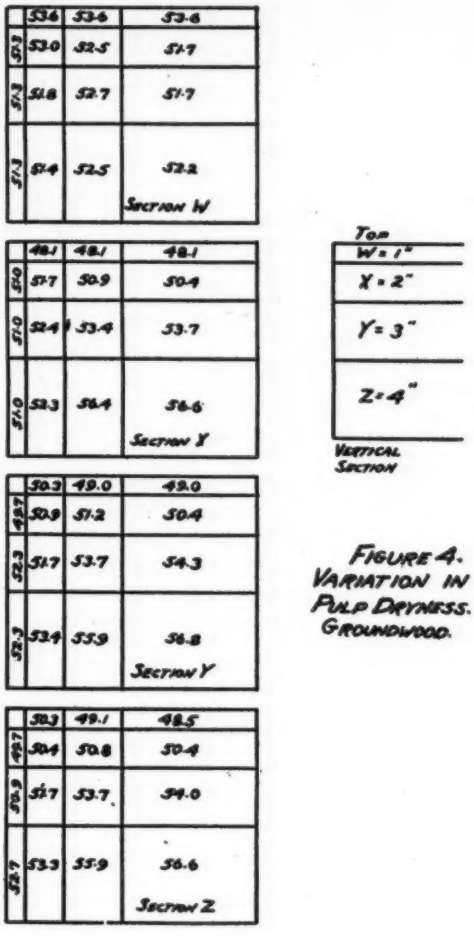

FIGURE 4.
VARIATION IN
PULP DRYNESS.
GROUNDWOOD.

FIG. 4

the balance of the bale, it is obvious that a moisture test method which does not require proportionate samples to be taken from all parts of the bale lacks the qualifications of a precise method. Thin bales average not more than 15 inches in thickness; thick ones over 24 inches. Consequently in terms of percentages, the samples taken by the disc method represent at most only 40 per cent of the thinnest and less than 25 per cent of the thickest bales.

The data presented above is somewhat meagre, so sweeping conclusions are not justified, but there is a distinct indication that, in general, American paper mills pay for more sulphite and for less groundwood than they actually receive.

Vertical Distribution of Moisture

A continuation of the comparison of disc and wedge methods and further analyses of individual bales, would have required more time than was available for this work, so a simpler method was sought. The results obtained by the method chosen are shown by the curves in Fig. 5 and Table II.

TABLE II—MOISTURE CONTENT AT 1-INCH INTERVALS

Pulp	Top	1"	2"	3"	4"	5"	6"	7"	8"	9"
X	85.8	83.6	83.2	83.0	82.8	82.6	82.6	82.5	....	....
Y	89.9	90.1	90.0	90.1	90.1	90.0	89.6	89.6	90.0	....
Z	88.0	87.0	86.8	86.6	86.5	86.4	86.3	86.1	86.0	....
A	89.0	88.4	88.3	88.1	88.1	88.0	88.0	87.6	87.5	87.8
B	87.8	86.9	86.5	86.1	86.0	85.9	85.9	86.4	85.7	....
C	88.2	86.2	85.9	85.9	86.0	85.8	86.8	87.3	87.6	....

These results represent the average moisture content of

single sheets taken at one-inch intervals from the top to the center of not less than four bales of each brand of pulp. It was found that each brand of pulp has a reasonably uniform type of curve, i. e., differences between bales of the same brand are, as a rule, not great. The shape of the curve depends on the moisture content of the bale, the wettest pulp naturally having the steepest moisture gradient. Pulp C is an exception to the rule, and as such deserves a few words of explanation. The middle third of each Pulp C bale is made up of sheets from the two edges of the drying machine (shown by the deckle edges), and because the edges of a web of pulp being dried are dryer than the rest, each bale contains a dry section in the middle, which with the disc method is to the disadvantage of the manufacturer. These particular bales are normal otherwise, showing the usual moisture gradient from the top to the point where the dry pulp begins.

Apart from this single abnormality, the curves are similar in general characteristics, and all six point to the conclusion that the moisture content at the three inch level is seldom close enough to that of the center of the bale to justify taking samples only to a depth of three inches.

Differences Caused by Sampling Method

Some interesting conclusions can be drawn from these curves, which are summarized in Table III.

TABLE III.—EFFECT OF SAMPLING METHOD ON MOISTURE

Brand	Average Thickness	No. Bales Samples	Ave. Oven Dry Pulp	T 210 m 1-2-3-4	Proposed 1-1-1-6	Alternative 1-0-0-8
X	14	8	83.1	83.5	83.4	83.3
Y	17	9	89.9	90.1	90.1	90.1
Z	16	9	86.6	86.9	86.8	86.8
A	18	15	88.0	88.3	88.2	88.2
B	16	4	86.3	88.6	86.4	86.3
C	16	8	86.5	86.2	86.2	86.2

The fourth column shows the average bone dry pulp content of the bales, assumed to be equal to the average height of the curves in Fig. 5. The fifth column shows the bone dry pulp content which would be found by combining the individual tests in the manner used in method T 210 m, i.e., first, plus twice second, plus three times the third, etc. In five cases out of six, the indicated pulp content is higher than the actual, the exception being the abnormal pulp mentioned above. The sixth column shows the oven dry pulp content which would be found by a modification of T 210 m, namely, first, plus second, plus third, plus six times the fourth. This modification is based on the fact that the moisture content at the three inch level is the closest approximation to that of the center which is possible under the circumstances. The proposed change would

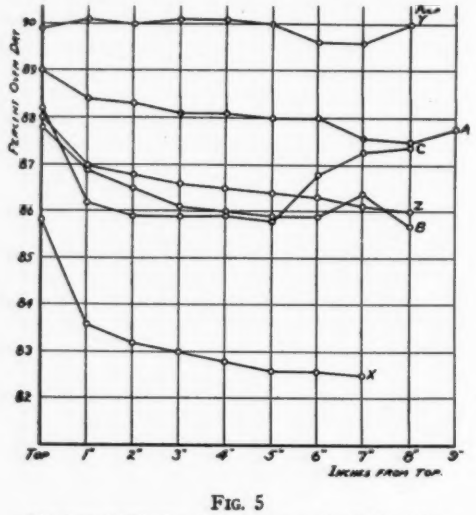

FIG. 5
Moisture distribution top to center of sulphite bales.

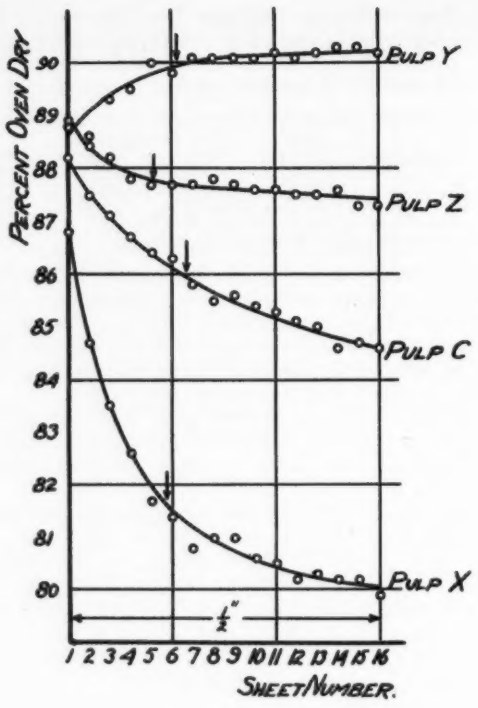

FIG. 6
Variation in dryness at top of bale.

give more nearly equal weight to each part of the bale than does T 210 m. The seventh column shows results of a further modification, namely the top sheet below the wrapper and eight sheets at a depth of three inches.

The average difference between T 210 m and the proposed method amounts to only 0.1 per cent, or 20 per cent of the difference we are seeking, but it is in the right direction and so points the way to an immediate improvement in the procedure. If this difference can be substantiated by additional tests, there should be no serious objection to making the proposed change, if only because it is based on more logical grounds than is T 210 m.

One other fact is apparent from Table III; the difference between the actual pulp content of the bale and that indicated by the combination of test sheets used in T 210 m is not 0.5 per cent, but 0.3 per cent.. Since the pulp content found by drying whole sheets can hardly be questioned, it becomes necessary to look for other sources of error.

Other Possible Sources of Error

One possible source is the custom of taking two samples of every five from the extreme corners, which ordinarily are the dryest part of the bale, being subject to drying from three directions. The corner portions from which the samples are taken contain 75 cubic inches each, 600 cubic inches per bale, or less than 5 per cent of the total volume. In other words, we now take 40 per cent of the sample from a 5 per cent portion which is the dryest part of the bale. This appears to be wrong, but a study of the sampling scheme shows that if proportionate samples were taken from all parts of the sheet twice as many discs should be taken from the edges as T 210 M specifies. In the absence of any data on the subject we are perhaps justified in assuming that two wrongs make a right and that the extra dryness of the corners compensates for the lack of a sufficient number of samples from the edges.

The more probable source of this difference lies in the fact that the first sample, according to T 210 m, is taken

from the second sheet of the wrapper, whereas all the figures for the disc methods in Table III are based on taking the sample from the first sheet of the main body of the bale. Neither method appears to be correct. It is difficult to see why even an empirical method should specify taking one-tenth of the total sample from a dried out wrapper which makes up at most only 3 per cent of the bale. If it is assumed that the 3 inch sample is representative of the pulp between the depths of 3½ and 2½ inches, the 2 inch sample representative of the pulp between 2½ and 1½ inches, etc., then it follows that the top sample must be representative of the pulp between the top and the ½ inch level, including the wrapper. The depth at which a sample fulfills this requirement is not known exactly, but whatever the depth may be it is hardly likely to be 1/32 inch below the outside wrapper. The curves in Fig. 6 show the change in moisture content from the outer wrapper to the half inch level of a few random bales, determined by drying out consecutive discs bored from the center of the bale. Each curve is made up of the average tests from two different bales. The sheet which corresponds most nearly to the average has been marked on each curve; the average for the five curves is the sixth sheet, which lies about 3/16 inch below the surface.

Possible Improvements

Three opportunities for improving the disc method have been pointed out, but it is evident both from theoretical considerations and the data presented above that this method as carried out at present is at best a compromise between accuracy and expediency. The only way to remedy its most fundamental weakness is to change the method so that sample discs will be taken through half the thickness of the bale, but of course this solution can not be given serious consideration because it would require borings from six to twelve inches deep. The obvious solution is to adopt the wedge method, but this is, in many cases, perhaps most cases, impracticable. However, the wedge method might well be specified as the preferred method, to be used whenever possible, and the disc method specified as the alternative.

A New Suggested Method

A method for combining the convenience of the disc method with the precision of the wedge method, suggested by J d'A. Clark, is submitted here as being worthy of most serious consideration. It is proposed that for each 20 bales sampled by the disc method, there shall be set aside one reference bale, but in no case less than 3 bales, selected so as to be as representative of the condition of the bales as possible. At the conclusion of the test, these reference bales shall be sampled first by the disc method, taking a complete set of discs from 5 borings from the top and bottom surfaces of the bale, and again by some admittedly accurate method, either wedge or quarter sheet. These two sets of samples shall be dried separately from each other, and from the main body of samples. From the ratio of these two moisture tests on the reference bales, a moisture correction factor shall be determined, and this correction factor applied to the moisture content determined in the usual way by the disc method. The weight of the shipment shall be calculated from this corrected moisture figure. The additional trouble involved in sampling and repacking these few reference bales would be relatively not great.

The application of this method would decrease the errors inherent in the disc method. On the other hand, it is obviously desirable that the correction should be as small as possible, a result which can be accomplished only by making the disc method as precise as possible. For this reason it is recommended that the sampling scheme be changed from the present 1-2-3-4 combination to the suggested 1-1-1-6 combination. It is further recommended that the first sample be taken not from the second sheet of the bale, but from the sixth sheet, for reasons given above.

There are other sections of T 210 m with which the writer is not wholly in agreement, notably Section 3C which refers to a modified wedge method, but it is not the purpose of this paper to present a complete and final revision of the procedure for moisture testing. Rather the objects are primarily to point out the source of a number of errors in the present methods of moisture testing, to offer suitable remedies and to provoke some thought on the subject which should lead eventually to a desirable revision of the present method. Such an examination is long overdue, for the Disc Method of sampling is one of the very few procedures in the paper industry which has remained unaltered for the past twenty-five years.

Literature Cited

(1) TAPPI Standards, T 210 m, (April 15, 1935).
(2) Manufacture of Pulp and Paper, Volume III, Section 8, Pages 23-26. The modified wedge method differs only in specifying one sample perpendicular to the mid-point of each edge, and one diagonal to any corner of each bale sampled, instead of the elaborate 30-wedge scheme. New York, McGraw-Hill (1927).

TAPPI Summer Meeting in Canada

Although it has been customary for the Technical Association of the Pulp and Paper Industry to hold a fall meeting each year, this practice will be changed somewhat in 1936. Arrangements have been approved by the executive committee to hold a joint meeting with the Technical Section of the Canadian Pulp and Paper Association from August 3 to 7, 1936.

The meeting will include a full-day business session in Montreal and a trip by boat up the Saguenay with one-day stopover in Quebec.

Visits to the mills in the district are being arranged and will include Anglo-Canadian Pulp and Paper Mills at Quebec; Donnacona Paper Mills at Donnacona; Price Brothers at Riverbend; the plant of the Aluminum Company at Arvida; the power development at Isle Maligne and other points of interest.

The boat, S. S. Quebec, will be chartered for the occasion. Rates on the boat are $45 for each person (2 in a room) outside rooms; $47 for each person (2 in a room) outside room with private toilet. This fare will include registration fee which will cover luncheon in Montreal and specified mill visits and sightseeing expenses. Ladies are invited and special committees will provide entertainment.

A tentative program subject to minor alterations is as follows:

MONDAY, AUGUST 3

Registration—Windsor Hotel, Montreal.
10:00 a.m. Business Session—Papers and Discussion.
1:00 p.m. Luncheon.
2:30 p.m. Business Session—Papers and Discussion. (Sightseeing and shopping tours will be arranged for the ladies.)
7:00 p.m. Leave on S. S. Quebec for Quebec.

TUESDAY, AUGUST 4

Arrive Quebec, 7:00 a.m.
Day in Quebec—Visit to Anglo-Canadian mill.
Visit to Donnacona mill (special fare).
Sightseeing trips as given below.
7:00 p.m. Leave Quebec for Murray Bay.

WEDNESDAY, AUGUST 5

Arrive Murray Bay 7:00 a.m.
Visit Monoir Richelieu. Golf and Swimming.
Leave Murray Bay at 1:00 p.m.
Arrive Bagotville 8:30 p.m.

THURSDAY, AUGUST 6

Morning by train to Riverbend (Price Bros. mill).
Afternoon return to Arvida (Aluminum Company plant).
Return to Bagotville 6:00 p.m.
Leave Bagotville 6:30 p.m.

FRIDAY, AUGUST 7

On the Boat: Morning—Business Sessions—Papers and Discussion. Afternoon Business Session—Papers and Discussions.
4:30 p.m. Arrive Montreal.

At Quebec numerous side trips will be available.
1. City sightseeing trip (1½ hours) $1.
2. To Donnacona Mill (4 hours) $2.50.
3. St. Anne de Beaupre, world famous shrine (4 hours) $2.50.
4. Isle of Orleans (4 hours) $2.50
5. Kent Golf Links (return trip) $1.25.
6. Royal Quebec Golf Club (return trip) $1.50.

Tickets for these trips will be on sale on the boat.

The accommodation on the boat is limited to 500 persons, and a number of reservations have already been received.

Reservations are to be made direct with L. S. Tobin, Economical Tours, 1409 Peel street, Montreal, P. Q.

Applications for reservations must be accompanied by a deposit of $25.

Anyone interested may attend this International meeting and should make reservations early.

A very limited number of rooms with twin beds and private bathroom is available at a cost of $56 per person. These rooms will have to be allotted on the basis of "first come, first served."

Additional information may be obtained from R. G. Macdonald, Secretary of TAPPI, 122 E. 42nd street, New York.

Delaware Valley TAPPI Discusses Bleaching

The Delaware Valley Section of the Technical Association of the Pulp and Paper Industry met at the Engineers Club, Philadelphia, Pa. on Friday evening, February 28 at 6:30 p.m. H. P. Cannon presided as chairman.

Chairman Cannon appointed the following nominating committee to report at the March meeting: E. J. Albert, F. W. Brainerd, C. W. Rivise, and C. A. Shubert.

A. E. Cottrall of the Albert E. Reed Company Ltd., England, was present, and was introduced.

R. G. Macdonald, Secretary of TAPPI outlined the plans for the joint summer meeting with the Technical Section of the Canadian Pulp and Paper Association to be held August 3 to 7, 1936. This meeting will include a cruise down the St. Lawrence River and up the Saguenay.

H. C. Schwalbe of Dill & Collins, Inc., introduced the speaker of the evening, John D. Rue of the Hooker Electrochemical Company, who talked on the subject: "What Do We Know About Bleaching?" This paper will be published in full in an early issue of the PAPER TRADE JOURNAL.

Among those present were the following: E. J. Albert, Thwing-Albert Instrument Company, Philadelphia; R. E. Aiman, Norristown; A. M. Ball, Hercules Powder Company, Wilmington, Del.; H. L. Becher, Agasote Millboard Company, Trenton, N. J.; L. M. Booth, Booth Chemical Company, Elizabeth, N. J.; F. W. Brainerd, Scott Paper Company, Chester, Pa.; J. H. Brougham, Penn Fibreboard Corporation, York, Pa.; W. E. Brow, Container Corporation of America, Manayunk; H. P. Cannon, same company; J. d'A. Clark, Scott Paper Company; C. M. Connor, Valley Forge Laboratories, Inc., W. Conshohocken, Pa.; N. C. Cooper, Du Pont Co., Wilmington; L. G. Cottrall, A. E. Reed & Co., England; L. P. Derr, Goulds Pumps, Inc., Philadelphia; J. H. Fritz, National Oil Products Company, Harrison, N. J.; L. A. Gilbertson, Dill & Collins, Inc., Philadelphia; G. A. Heidrich, Wallace & Tiernan Company, Newark; C. T. Henderson, Burlingame, Cal.; C. W. Hoffman, Riegel Paper Corporation, Milford, N. J.; H. F. Hoffmann, General Dyestuff Corporation, Philadelphia; Leslie Justice, Valley Forge Laboratories, W. Conshohocken; C. E. Kinney, Hercules Powder Company, Wilmington; Paul Koenig, P. H. Glatfelter Company, Spring Grove, Pa.; G. E. Landt, E. N. Wennberg of Continental-Diamond Fibre Company, Bridgeport, Pa.; P. M. Loddengaard, Bulkley, Dunton & Co., New York; A. J. Luettgen, P. H. Glatfelter Company, Spring Grove; H. T. Lundquist, National Vulcanized Fibre Company, Wilmington, Del.; R. G. Macdonald, TAPPI, New York; G. B. Martin, General Dyestuff Corporation, Philadelphia; F. E. Macy, Dill & Collins, Inc., Philadelphia; M. Craig Maxwell, McDowell Paper Mills, Manayunk; M. C. Moore, Hercules Powder Company, Wilmington; E. H. Niederauer, Dill & Collins, Inc., Philadelphia; C. W. Rivise, Philadelphia; S. D. Reynolds, Container Corporation of America, Manayunk; John Roslund, Moore & White Company, Philadelphia; J. Carl Schmidt, Du Pont Company, Philadelphia; H. C. Schwalbe, Dill & Collins, Inc., Philadelphia; Adolf Shnable, Mazer Paper Mills, Lansdowne, Pa.; C. A. Shubert, Dill & Collins, Inc., Philadelphia; C. S. Smith, Riegel Paper Corporation, Milford, N. J.; C. C. Stewart, C. C. Stewart Paper Company, Philadelphia; C. S. Taylor, Riegel Paper Corporation, Milford, N. J.; F. W. Varden, Barber Asphalt Company, Philadelphia; Peter Van Wyck, Hercules Powder Company, Wilmington, Del.; J. Young, Du Pont Company, Wilmington; J. D. Rue, Hooker Electrochemical Company, Niagara Falls, N. Y.

German Paper Men Not Enthusiastic

Reports received here state that despite the statistical evidence of improvement, paper manufacturers in Germany do not express any marked enthusiasm over the present situation or the immediate outlook.

Reports from various sources indicate that the paper mills are faced with immense difficulties in making their operations remunerative. The rate of utilization of plant capacity is still low, and the pressure of high prices paid for raw materials, the heavy taxation, the excessive number of workers employed in response to government appeals, tend to make it more difficult to make both ends meet.

CONSTRUCTION NEWS

A Summary of Vital Facts Regarding Construction, Finances and Operation of Paper Mills

Construction News

St. Louis, Mo.—The Beacon Paper Company, 301 North Second street, paper products, has leased a six-story building at Tenth street and Clark avenue, and will improve and equip for early occupancy. Portion of structure will be used for storage and distribution. New location will provide for considerable increase in present facilities.

Holyoke, Mass.—The American Writing Paper Company, Main street, has plans maturing for proposed installation of new equipment in different mills, including Linden and Nonotuck plants. As first noted, work will comprise new power drives, driers, smoothing press and other machinery, reported to cost over $80,000; at Nonotuck mill, installation will include a new waterwheel with accessories, agitators, suction rolls, etc., to cost close to $35,000. Improvements will be made in power house at the Platner and Porter-Parsons mill.

Boston, Mass.—The Collier Manufacturing Company, recently organized with capital of 500 shares of stock, plans operation of a plant in this vicinity for manufacture of a line of paper products. James C. Collier is president of new company, and Madeline C. Whiting, Littleton, Mass., treasurer and representative.

Crossett, Ark.—The Crossett Lumber Company is having plans drawn by Hardy S. Ferguson & Co., 200 Fifth avenue, New York, N. Y., consulting engineers, for proposed new pulp and paper mill, previously referred to in these columns, and will begin foundations for main units at early date. Tract of land has been selected in the Northwestern section of the community, near the present sawmills and charcoal retorts of company. Plant will consist of group of buildings, equipped for production of kraft paper stocks, and will have an initial rated output of about 150 tons per day. A housing development for employes at the mill will be carried out in the immediate vicinity, consisting of a group of about 200 dwellings. Entire project will cost close to $4,000,000. Financing in such sum was arranged a number of months ago with RFC.

Madison, Wis.—The Feldman Paper Box and Printing Company, 29 North Charter street, manufacturer of paper boxes and containers, etc., has approved plans for new addition to plant, comprising a second story to existing one-story structure. General contract has been let to the Modern Builders, Inc., 1420 Mound street, and work will be placed under way at early date. No estimate of cost has been announced. Plant capacity will be increased. Balch & Lippert, Gay Building, Madison, are architects.

Cleveland, Ohio—The Wolf Envelope Company, 1749 East 22nd street, manufacturer of commercial envelopes, etc., has acquired a one-story building adjoining plant, 40 x 116 feet, and will use for future expansion. Structure was formerly occupied by the Halle Brothers Company.

Lee, Mass.—Smith Paper, Inc., manufacturer of wrapping and tissue paper stocks, etc., has taken bids on general contract for a new one-story addition to local Eagle mill, recently referred to in these columns. It is understood that general award will be made late in March. Expansion will be carried out in the machine department and finishing division. Entire project is reported to cost close to $100,000, including equipment.

Paducah, Ky.—The Meyers Paper Company, distributor of commercial paper products, is said to be planning rebuilding of portion of storage and distributing plant, recently destroyed by fire. No estimate of loss has been announced.

Richmond, Va.—The duPont Rayon Company, Ampthill, near Richmond, manufacturer of cellulose rayon products, has awarded contract to the Bethlehem Steel Company, Bethlehem, Pa., for structural steel framing for new addition to mill. Work on superstructure is scheduled to begin soon. Entire project is reported to cost close to $100,000, including equipment. Main offices of company are at 350 Fifth avenue, New York, N. Y.

Houston, Tex.—The Champion Paper and Fibre Company, Hamilton, Ohio, manufacturer of coated and other paper stocks, has awarded general contract to the Morton C. Tuttle Company, 31 St. James avenue, Boston, Mass., for proposed new pulp mill on site near Houston, recently referred to in these columns. Company has taken over a tract of about 160 acres of land on the Houston ship channel, approximately 10 miles east of the city, and has foundation tests under way for different units for new mill; this latter work is being carried out under direction of J. E. Sirrine and Company, Greenville, S. C., consulting engineers. Plant will consist of group of large buildings for production of long-fiber bleached and semi-bleached sulphate pulp, under a new process. It will have an initial rated output of about 150 tons per day. It is proposed to begin actual construction in the Spring. Plant is estimated to cost close to $3,500,000. Of this amount about $585,000 will be expended for building units and close to $2,000,000 for machinery and equipment. A water supply system will be developed at a cost of about $200,000, including large pumping station, pipe lines, etc., and water-treating plant; approximately $300,000 will be used for an electrolyte plant. Remainder of fund will be expended for miscellaneous building and equipment.

Teikoku, Japan—The Teikoku Rayon Company, Ltd., Teikoku, has plans under way for the construction of a new cellulose rayon mill on local site. It will comprise several units, with power house, machine shop and other mechanical departments, and will be equipped for large capacity. It is estimated to cost over $400,000, including machinery.

New Companies

Terre Haute, Ind.—The Mid-States Paper Company,

Inc., 517 North 13th street, has been incorporated with capital of 2000 shares of stock, no par value, to deal in commercial paper products, including paper bags and containers. The incorporators include: A. E. Carmichael and Gleyn F. Wallenbrook, 2406 Wabash avenue, Terre Haute. Last noted is company representative.

Chicago, Ill.—The Lakeside Envelope-Chicago Central Tablet Company, 333 South Desplaines street, has been chartered with capital of 500 shares of stock, no par value, to manufacture and deal in commercial envelopes and other general paper products. The incorporators are: Arthur R. Martin, James A. Turner and John F. Falvey.

Brooklyn, N. Y.—The Glenmore Paper Company, Inc., has been incorporated with capital of 200 shares of stock, no par value, to deal in paper products of various kinds. Incorporators include: Julius Gantman and Samuel L. Nadler, 401 Broadway, New York.

Hartford, Conn.—The Hartford Paper Company, 294 Pleasant street, has filed notice of organization to deal in paper goods of various kinds. Edward M. Cohen and Henry Levine head the company.

APPOINTS SUB-COMMITTEE ON STREAM POLLUTION

(Continued from page 13)

Committee and of the United States Public Health Service, which recommended further study before new legislation is contemplated, immediate steps must be taken to stop pollution from all sources.

"The subject matter of these bills proposes radical change in jurisdictions. It is vital to all industries that a clear-cut record be made at the hearing. The burden cannot be carried by one or two industries alone. All industries that discharge effluents into natural water courses should appear at the hearing.

"It is impossible to estimate the cost to industry and to municipalities of the installation of means of eliminating stream pollution. One authority has stated that it would cost urban cities in the neighborhood of a billion dollars and that industries as a whole would be faced with a bill from three to five times greater. The cost to the paper industry would be prohibitive."

Robert Gair Co. Pays Dividend

At the annual meeting of the stockholders of the Robert Gair Company, Inc., held February 27, it was announced that the directors had declared a dividend of 75 cents a share upon the preferred stock of the company, payable on March 31, 1936, to preferred stockholders of record at the close of business on March 16, 1936.

Eaton Paper Co. Reports Profit

Eaton Paper Company in a statement to the stockholders reported a profit of $22,350 for 1935, against a loss of $55,194 for 1934. The deficit, which stood at $180,106 at the beginning of 1935, has been reduced to $157,756. Besides Eaton papers the company manufactures Whiting & Cook stationery and various writing desk accessories.

Oxford Paper Co. Pays Dividend

The Oxford Paper Company, of Maine, has declared a dividend of $1.50 a share on the 84,627 shares of $6 preferred stock, payable March 1 to holders of record February 19. The last previous payment was $1.50 on March 1, 1934, and accumulations as of January 1, last, amounted to $21 a share.

Improved End-Wood Wheel

The latest achievement in Protective-Tread Wheels is the newly improved End-Wood Wheel of the Metzgar Company of Grand Rapids, Michigan.

For nearly two decades the Metzgar Company has been manufacturing these wheels in sizes from 2½ inches in diameter up to 22 inches in diameter, and in different types, and fitted with both plain and anti-friction bearings to meet all requirements for hand trucks, such as two-wheel warehouse trucks, four-wheel platform trucks, hand-lift trucks, trailers and casters.

This newly improved wheel, is being sold at no additional price over their older type wheel, and the manufacturers claim it will add from 15 to 25 per cent additional wear.

The Metzgar End-Wood Wheels have always been sold under a long term guarantee. Full information may be had upon request.

Paper Industry for Southern Rhodesia

After several years of investigation, a pulp and paper-making industry is to be established in Southern Rhodesia, according to advices from the American consulate-general, Johannesburg, made public by the Commerce Department. The site of the new plant will be at Inyanga on the eastern border of the Colony.

The surrounding country is mountainous and the rainfall high and experts consulted have reported favorably on the project, the report states.

Large-scale planting of pine trees have already begun and it is planned to plant 2,000 acres per year which, it is thought, will provide sufficient pulpwood for mills with an output of 60,000 tons per annum. It is claimed locally that the rate of growth at Inyanga is at least four times that in colder climates and it is expected that trees will grow to pulping size in twelve years.

The industry will have the advantages at Inyanga of cheap land and hydroelectric power and plentiful cheap labor. In case it is desired to dispose of any trees as structural timber an outlet is afforded by the Pungwe River, on which timber could be floated to Beira, Portugese East Africa, it was stated.

At the present time, with the exception of a small establishment near Johannesburg, which is inoperative, there is no paper or pulp mill in all of Southern Africa, the report states.

American Writing Hearing Postponed

The hearing on the petition of creditors of the American Writing Paper Company which involved a request for auditing the company, appointment of trustees and other matter, has been postponed to March 16 by consent of all parties.

IMPORTS OF PAPER AND PAPER STOCK

NEW YORK, BOSTON, PHILADELPHIA AND OTHER PORTS

NEW YORK IMPORTS

WEEK ENDING FEBRUARY 29, 1936

WALLPAPER

F. J. Emmerich, Hansa, Hamburg, 1 ble.; ———, Hansa, Hamburg, 1 cs.; ———, Ansonia, London, 6 bls.

NEWSPRINT

Jay Madden Corp., Argosy, Helsingfors, 35 rolls; National Pulp & Paper Co., Inc., Kersten Miles, Sundsvall, 129 rolls; S. B. Behrens & Co., Kersten Miles, Sundsvall, 57 rolls; Perkins Goodwin & Co., Hansa, Hamburg, 279 rolls.

PRINTING PAPER

Jay Madden Corp., Argosy, Helsingfors, 24 bls., 102 rolls; Steiner Paper Corp., Hansa, Hamburg, 1 cs.; E. Dietzgen & Co., Hansa, Hamburg, 34 cs.

WRAPPING PAPER

Scharf Bros., Leerdam, Rotterdam, 1 cs.; Steiner Paper Corp., Hansa, Hamburg, 31 cs.; Globe Shipping Co., Hansa, Hamburg, 116 rolls.

FILTER PAPER

H. Reeve Angel & Co., Inc., Ansonia, London, 12 cs.

DRAWING PAPER

Keuffel & Esser Co., American Merchant, London, 3 cs.

BRISTOL BOARDS

Keuffel & Esser Co., American Merchant, London, 1 cs.

METAL COATED PAPER

K. Pauli Co., Hansa, Hamburg, 10 cs.

PHOTO PAPER

J. J. Gavin & Co., Aquitania, Southampton, 6 cs.

DECALCOMANIA PAPER

B. F. Drakenfeld & Co., Scythia, Liverpool, 4 cs. (simplex).

DECALCOMANIAS

Sellers Transportation Co., Hansa, Hamburg, 22 cs.

COLORED PAPER

International F'd'g Co., Hansa, Hamburg, 9 cs.

TISSUE PAPER

W. J. Byrnes, Aquitania, Southampton, 1 cs.; Van Oppen & Co., Conti di Savoia, Genoa, 11 cs.; Atlantic F'd'g Co., Hansa, Hamburg, 24 cs.

BOWL PAPER

Hurley Johnson Corp., American Shipper, Manchester, 2 rolls.

STENCIL PAPER

American Express Co., Hansa, Hamburg, 4 cs.

STRAW BOARD

———, Leerdam, Rotterdam, 132 rolls.

CARD BOARD

———, Hansa, Hamburg, 50 bls.

PAPER TUBES

———, Hansa, Hamburg, 111 pkgs.

MISCELLANEOUS PAPER

U. S. Envelope Co., Kongo Maru, Yokohama, 29 cs.; ———, Hokuroku Maru, Kobe, 30 cs.; C. Happel, Hansa, Hamburg, 2 cs.

RAGS, BAGGINGS, ETC.

S. Shapiro & Son, Argosy, Gdynia, 140 bls. rags; E. J. Keller Co., Inc., American Shipper, ———, 30 bls. bagging; ———, American Shipper, Manchester, 39 bls. new cuttings; ———, American Shipper, Manchester, 39 bls. paper stock; ———, American Shipper, Manchester, 46 bls. pickers; Royal Manfg. Co., American Shipper, Manchester, 50 bls. cotton waste; M. Snedeker Corp., American Shipper, Liverpool, 264 bls. paper stock; Manufacturers Trust Co., American Merchant, London, 48 bls. rags; ———, Pr. Wilson, Bombay, 28 bls. rags; American Express Co., Ansonia, London, 22 bls. rags; Atlas Waste Manfg. Co., Black Condor, Rotterdam, 9 bls. bagging; F. Stern, Black Condor, Rotterdam, 131 bls. rags; ———, Liberty, Leith, 82 bls. bagging; ———, Liberty, Dundee, 296 bls. paper stock; American Express Co., Liberty, Liverpool, 14 bls. rags; E. Butterworth & Co., Inc., Liberty, Manchester, 26 bls. old twine; O'Brien Padawer Co., Hokuroku Maru, Osaka, 200 bls. cotton waste; E. J. Keller Co., Inc., Gerolstein, ———, 114 bls. bagging; E. J. Keller Co., Inc., Leerdam, ———, 197 bls. rags; E. J. Keller Co., Inc., Leerdam, ———, 55 bls. bagging; Loumar Textile By Products Co., Leerdam, Rotterdam, 64 bls. bagging; ———, Leerdam, Rotterdam, 69 bls. rags; Great Eastern Packing & Paperstock Corp., Leerdam, Rotterdam, 61 bls. bagging; E. J. Keller Co., Inc., Ilsenstein, ———, 115 bls. bagging; E. J. Keller Co., Inc., Pr. Roosevelt, ———, 40 bls. bagging; E. J. Keller Co., Inc., Pr. Roosevelt, ———, 341 bls. paper stock; E. J. Keller Co., Inc., Ingria, ———, 85 bls. paper stock; E. J. Keller Co., Inc., Ingria, ———, 162 bls. bagging; E. J. Keller Co., Inc., Exeter, ———, 45 bls. paper stock.

HIDE GLUE

———, Hansa, Hamburg, 200 bags.

OLD ROPE

Manufacturers Trust Co., Norden, Hamburg, 139 coils; ———, Liberty, Leith, 80 coils.

CASEIN

Kalbfleisch Corp., Eastern Prince, Buenos Ayres, 417 bags.

CHINA CLAY

English China Clays Sales Corp., Scythia, Liverpool, 504 bags; Whitaker Clark & Daniels, Scythia, Liverpool, 390 bags.

WOOD PULP

Perkins Goodwin & Co., Argosy, Stockholm, 1,050 bls.

sulphate, 177 tons; Castle & Overton, Inc., Argosy, Helsingors, 1,428 bls. sulphite, 284 tons; Bulkley Dunton & Co., Kersten Miles, ———, 1,250 bls. sulphate, 250 tons; Mead Sales Co., Inc., Kersten Miles, Sundsvall, 1,000 bls. sulphite, 200 tons; Bank of Manhattan Co., Kersten Miles, Sundsvall, 375 bls. chemical, 75 tons; ———, Kersten Miles, Hernosand, 5,550 bls. sulphate, 925 tons; ———, Kersten Miles, Hernosand, 1,200 bls. sulphite, 200 tons; Bank of Manhattan Co., Kersten Miles, Hernosand, 3,600 bls. sulphite, 600 tons; J. Andersen & Co., Kersten Miles, Hernosand, 450 bls. sulphite, 75 tons; Castle & Overton, Inc., Leerdam, Rotterdam, 1,266 bls. wood pulp; Bank of Manhattan Co., Kersten Miles, Hernosand, 4,064 bls. sulphate, 677 tons; N. Y. Trust Co., Hansa, Hamburg, 324 bls. wood pulp, 48 tons; F. D. Maxwell Corp., Hansa, Hamburg, 30 rolls wood pulp; Bank of N. Y. Trust Co., Hansa, Hamburg, 700 bls. wood pulp, 140 tons; ———, Hansa, Hamburg, 1,750 bls. sulphate, 355 tons.

WOOD PULP BOARDS

Jay Madden Corp., Argosy, Helsingfors, 70 rolls, 23 bls.; Wilkinson Bros. & Co., Inc., Norden, Hamburg, 67 bls.

BOSTON IMPORTS

WEEK ENDING FEBRUARY 29, 1936

Bulkley Dunton & Co., Kersten Miles, ———, 525 bls. wood pulp, 100 tons; Bank of Manhattan Co., Kersten Miles, Hernosand, 6,300 bls. sulphite, 1,050 tons; Central Hanover Bank Trust Co., Kersten Miles, Hernosand, 1,200 bls. sulphite, 200 tons; J. Andersen & Co., Kersten Miles, Hernosand, 600 bls. sulphite, 100 tons; Johaneson Wales & Sparre, Inc., Kersten Miles, Sundsvall, 375 bls. chemical, 75 tons; Parsons & Whittemore, Inc., Kersten Miles, Sundsvall, 82 rolls newsprint; Irving Trust Co., Black Condor, Rotterdam, 75 bls. old rope; American Express Co., Black Condor, Rotterdam, 38 bls. rags; F. Stern, Black Condor, Rotterdam, 70 bls. rags; ———, Black Condor, Antwerp, 93 bls. flax waste; ———, Black Condor, Antwerp, 62 bls. rags; American Express Co., Black Condor, Antwerp, 29 rolls wrapping paper; F. S. Webster Co., Inc., Scythia, Liverpool, 17 cs. tissue paper; G. F. Malcolm, Inc., Scythia, Liverpool, 15 cs. tissue paper; ———, Scythia, Liverpool, 694 bags hide cuttings; Bulkley Dunton & Co., Georgic, ———, 400 bls. wood pulp; Bulkley Dunton & Co., Beemsterdyk, ———, 115 bls. wood pulp; Bulkley Dunton & Co., Kelkheim, ———, 3,250 bls. wood pulp; Parsons & Whittemore, Inc., Hagen, ———, 125 bls. wood pulp; Gottesman & Co., Inc., Hagen, Czecho-Slovakia, 672 bls. wood pulp; E. J. Keller Co., Inc., Pr. Hayes, ———, 45 bls. paper stock; E. J. Keller Co., Inc., Exeter, ———, 216 bls. paper stock.

PORTLAND IMPORTS

WEEK ENDING FEBRUARY 29, 1936

Gottesman & Co., Inc., Kelkheim, Sweden, 925 bls. wood pulp; Bulkley Dunton & Co., Etna, ———, 4,075 bls. wood pulp.

PHILADELPHIA IMPORTS

WEEK ENDING FEBRUARY 29, 1936

Jay Madden Corp., Argosy, Helsingfors, 203 bls. wood pulp boards; Jay Madden Corp., Argosy, Helsingfors, 252 rolls newsprint; J. W. Hampton, Jr., & Co., Argosy, Helsingfors, 557 rolls newsprint; Castle & Overton, Inc., Argosy, Helsingfors, 663 bls. sulphite, 131 tons; Congoleum Nairn Co., Tonsbergfjord, Bilbao, 112 bls. rags; E. J. Keller Co., Inc., Black Condor, ———, 134 bls. rags; E. J. Keller Co., Inc., Black Condor, ———, 42 bls. fustians; National Vulcanized Fibre Co., Black Condor, Rotterdam, 209 bls. rags; W. F. Sherwood & Son, Black Condor, Rotterdam, 63 bls. rags; Castle & Overton, Inc., Black Condor, Antwerp, 95 bls. rags; R. Blank, Black Condor, Antwerp, 87 bls. rags; J. M. Hagy Waste Works, Black Condor, Antwerp, 52 bls. rags; Philadelphia National Bank, Black Condor, Antwerp, 216 bls. rags; Lang Co., Black Condor, Antwerp, 483 bls. rags; ———, Black Condor, Antwerp, 290 bls. rags; ———, Liberty, Hamburg, 249 bls. rags; Castle & Overton, Inc., Liberty, Hamburg, 2,505 bls. wood pulp, 503 tons; ———, Liberty, Hamburg, 468 bls. wood pulp, 20 tons; ———, Liberty, Hamburg, 796 rolls wrapping paper; Castle & Overton, Inc., Leerdam, Rotterdam, 1,249 bls. wood pulp; Bank of N. Y. Trust Co., Leerdam, Rotterdam, 192 bls. rags; Bank of N. Y. Trust Co., Leerdam, Rotterdam, 234 bls. wood pulp; E. J. Keller Co., Inc., Examiner, ———, 179 bls. paper stock; E. J. Keller Co., Inc., Ingria, ———, 84 bls. paper stock.

CAMDEN IMPORTS

WEEK ENDING FEBRUARY 29, 1936

Perkins Goodwin & Co., Argosy, Gdynia, 2,000 bls. wood pulp, 308 tons; Lagerloef Trading Co., Argosy, Helsingfors, 12,330 bls. sulphate, 2,343 tons.

NEWPORT NEWS IMPORTS

WEEK ENDING FEBRUARY 29, 1936

Bulkley Dunton & Co., Dalhem, ———, 6,071 bls. wood pulp; Gottesman & Co., Inc., Fechenheim, Sweden, 1,000 bls. wood pulp.

NORFOLK IMPORTS

WEEK ENDING FEBRUARY 29, 1936

Carolina Bagging Corp., Leerdam, Rotterdam, 38 bls. bagging.

NEW ORLEANS IMPORTS

WEEK ENDING FEBRUARY 29, 1936

O'Brien Padawer Co., Kongo Maru, Kobe, 250 bls. cotton waste.

BALTIMORE IMPORTS

WEEK ENDING FEBRUARY 29, 1936

Johaneson Wales & Sparre, Inc., Kersten Miles, Sundsvall, 1,376 bls. sulphite, 254 tons; Bulkley Dunton & Co., Kersten Miles, ———, 8,000 bls. sulphite, 1,600 tons; Central Hanover Bank Trust Co., Kersten Miles, Hernosand, 2,550 bls. sulphite, 425 tons; J. Andersen & Co., Kersten Miles, Hernosand, 2,700 bls. sulphite, 450 tons; S. Shapiro & Sons, Kongo Maru, Nagoya, 367 bls. rags; Bulkley Dunton & Co., Fechenheim, ———, 5,700 bls. wood pulp; Parsons & Whittemore, Inc., City of Newport News, ———, 500 bls. wood pulp; Gottesman & Co., Inc., City of Newport News, Czecho-Slovakia, 2,592 bls. wood pulp; Gottesman & Co., Inc., City of Newport News, Sweden, 2,800 bls. wood pulp.

Forestry Association Appoints Paper Men

A. E. McMaster, vice-president and general manager of the Powell River Company and C. M. Bartram, of Bartram Paper Products, Vancouver, B. C., were recently appointed directors of the Canadian Forestry Association. C. A. Jorgenson, secretary of the B. C. Pulp and Paper Company, was appointed to the executive committee.

New York Market Review

Office of the PAPER TRADE JOURNAL,
Wednesday, March 4, 1936.

With the end of the recent prolonged spell of severe weather, trading in the local paper market, is becoming more lively. Supplies are now moving into consumption at a more rapid pace. Salesmen of the leading paper organizations are girding their loins for a strenuous campaign for new orders. Prices are generally holding to schedule.

The newsprint paper market is exhibiting a stronger undertone. Advertising linage is running aead of last year's record and circulations are growing. Production is being maintained in sufficient volume to take care of current requirements. Stocks at the mills are normal for the season. Prices are steady and unchanged.

Steadiness prevails in the fine paper market. Demand for book, cover, bond and ledger papers is fairly persistent, prices remain unchanged. Tissues are moving into consumption in good volume. The coarse paper market is displaying strength. Some improvement is noticed in the paper board market. Prices are well-sustained.

Mechanical Pulp

The ground wood pulp market is moderately active. Manufacturing operations in the United States, Canada and abroad are proceeding at a steady pace and with the output practically keyed to capacity the condition of the industry is sound. Prices are generally holding to previously quoted levels, without difficulty, and reports of shading are infrequent.

Chemical Pulp

Business in the chemical pulp market is brisk. Demand for the various domestic and imported grades is well-sustained. Quotations on bleached soda pulp have been advanced by $2 per ton to $52 per ton, delivered. Kraft pulp and bleached sulphite pulp continue firm, while other grades are steady.

Old Rope and Bagging

The old rope market is stronger. Demand for both foreign and domestic old manila rope is slightly better. Mixed strings are moving freely. Old rope prices are firmer. No radical changes transpired in the bagging market. Offerings of scrap and gunny bagging are limited. Roofing bagging is in seasonal request.

Rags

Conditions in the domestic rag market are improving steadily. With supplies of new cotton rags scarce, prices are displaying a rising tendency. All grades of shirt cuttings are firmer, especially fancy shirt cuttings, which are now quoted at 3.25 to 3.50 and washables, which are offered at 2.25 to 2.50.

Waste Paper

The paper stock market is sharing the general business improvement. Recent inclement weather conditions retarded collections materially, with the result that offerings are scarcer and prices firmer. Strictly folded news is now quoted at .40 to .45 and No. 1 mixed paper at .32½ to .37½. Old kraft machine compressed bales are offered at 1.25 to 1.35.

Twine

Although most of the business transacted in the local twine market during the past week was routine the industry is considered in a sound position. With the approach of Easter and warmer weather, demand for the various varieties will undoubtedly be livelier. No changes are reported in the price situation.

Franklin Paper Co. Elects Officers

[FROM OUR REGULAR CORRESPONDENT]

HOLYOKE, Mass., March 3, 1936—New officials have been elected at the Franklin Paper Company and new faces appear on the board of directors. The officers and directors elected are as follows: President, George C. Watson, President and General Manager of the Bullard Thread Company; Vice-President, Robert M. Swaney of South Hadley; Treasurer (re-elected), James B. Ramage of South Hadley; Directors, George C. Watson, Robert M. Swaney, James B. Ramage, Nathan P. Avery and Philip M. Purrington.

Mr. Watson succeeds Robert A. Ramage and Robert M. Swaney succeeds Theodore R. Ramage of Springfield.

Parker Young Co. Plan Accepted

Attorney Raymond U. Smith, trustee for the Parker Young Company, reported to the United States District Court at Concord, N. H. on Friday of last week, that bondholders and unsecured creditors had voted to accept the company's composition offers.

The company offered 37½ cents on the dollar to bondholders and 20 cents to unsecured creditors, payable on confirmation by the court, not later than March 31. The offer was made on $1,500,000 in bonds and approximately $95,000 in unsecured obligations.

Celotex Corp. Elects Officers

The Celotex Corporation has elected the following officers: B. H. Dahlberg, president; Treadway B. Munroe, Carl G. Muech and O. S. Mansell, vice presidents; Charles G. Rhodes, secretary and assistant treasurer; Waverly W. Rogerson, treasurer and assistant secretary, and Harold A. Knapp, assistant secretary. In addition to Messrs. Dahlberg, Munroe and Muech, the directors are W. W. Colpitts, Edward J. Costigan, John G. Getz, Wallace Groves, Walter S. Mack Jr., James W. Marshall and William B. Nichols.

Taylor-Logan Co. Gets R. F. C. Loan

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., March 4, 1936—The Reconstruction Finance Corporation has announced that during January it authorized a loan of $60,000 to the Taylor-Logan Company, Holyoke, Mass.

Miscellaneous Markets

Office of the PAPER TRADE JOURNAL,
Wednesday, March 4, 1936.

BLANC FIXE.—Conditions in the blanc fixe market are fairly satisfactory. Prices are holding to schedule, without difficulty. The pulp is quoted at $42.50 to $45 per ton, in bulk; while the powder is selling at 3½ to 3¾ cents per pound, in barrels, at works.

BLEACHING POWDER.—The position of the bleaching powder market is unchanged. Shipments against contract are moving regularly. No changes have transpired in the price situation. Bleaching powder is quoted at $2 to $2.25 per 100 pounds, in drums, at works.

CASEIN.—The casein market is irregular. Domestic standard ground is now quoted at 14½ and finely ground at 15 cents. Argentine and French standard ground are selling at 14 and finely ground at 14¼ cents per pound, all in bags, car lot quantities.

CAUSTIC SODA.—Paper mill demand for caustic soda is fairly persistent. The contract movement is well up to average. Solid caustic soda is still quoted at $2.55 to $2.60; while the flake and ground are offered at $2.95 to $3 per 100 pounds, in drums, at works.

CHINA CLAY.—The china clay market is exhibiting a strong undertone. Contract shipments are moving freely. Imported china clay is still quoted at $13 50 to $21 per ton, ship side; while domestic paper making clay is selling at $6.50 to $12 per ton, at mine.

CHLORINE.—Steadiness prevails in the chlorine market. Demand from the paper mills is fairly brisk. The contract movement is normal for the time of year. Prices remain unchanged. Chlorine is quoted at $2.15 to $2.55 per 100 pounds, in tanks, or multi-unit cars, at works.

ROSIN.—The rosin market is displaying strength. Paper making gum rosin is quoted at $4.55 and wood rosin at $4.25 per 280 pounds, gross weight, in barrels, at Savannah. Seventy per cent rosin size is selling at $2.61½ per 100 pounds, in tank cars, at works.

SALT CAKE.—Business in the salt cake market is fairly active. The contract movement is normal for the season. Salt cake is quoted at $12 to $13; chrome salt cake at $11 to $12 per ton, at works. Imported salt cake is selling at $12 to $13 per ton, ship side.

SODA ASH.—The soda ash market is displaying strength. Supplies are going forward to the paper mills in good volume. Quotations on soda ash, in car lots, at works, per 100 pounds, are as follows: in bulk, $1.05; in bags, $1.20; and in barrels, $1.50.

STARCH.—Trading in the starch market is improving. The contract movement is considered satisfactory for the season. Prices are unchanged. Special paper making starch is quoted at $3.10 per 100 pounds, in bags; and at $3.37 per 100 pounds, in barrels, at works.

SULPHATE OF ALUMINA.—The sulphate of alumina market is showing signs of betterment. Prices are holding to schedule, without difficulty. Commercial grades are quoted at $1.35 to $1.50, and iron free at $1.90 to $2.95 per 100 pounds, in barrels, at works.

SULPHUR.—The sulphur market is steady. On yearly contracts, sulphur is quoted at $18 per long ton, in bulk, on orders of 1,000 tons, or over, and at $20 per ton on any smaller quantity. On spot and near by car loads, the quotation is $21 per ton. All prices, in car lots, at mine.

TALC.—Supplies of talc are moving into consumption in fairly good volume. Prices are holding to formerly quoted levels. Domestic talc is selling at $16 to $18 per ton, at eastern mines; while imported talc is offered at $23 to $30 per ton, on dock.

Market Quotations

Paper

Rag Content Bond & Ledgers—
Delivered Zone 1

	Bonds	Ledgers
100% Rag Ext. No. 1	.36	.37
100% Rag	.28	.29
75% Rag	.21	.22
65% Rag	.18	.19
50% Rag	.15	.16
25% Rag	.12½	.13½

Sulphite Bond & Ledgers—
Delivered Zone 1

	Bonds	Ledgers
No. 1 Sulphite	7.75	8.75
No. 2 Sulphite	6.75	7.75
No. 3 Sulphite	6.00	7.00
No. 4 Sulphite	5.50	6.50

Book, Cased—

S. & S. C.	5.35 @	5.75
S. & S. C. Litho.	5.60 @	6.00
M. F.	5.10 @	5.50
Coated and Enamel	5.90 @	6.55
Coated Litho	5.90 @	6.55

Tissues—Per Ream—

White No. 1	.82½ @	—
White No. 1 M. G.	.77½ @	—
White No. 1½	.62½ @	—
White No. 2	.60 @	—
Anti-Tarnish M. G.	.67½ @	—
Colored	.80 @	—
Kraft	.67½ @	—
Manila	.60 @	—
Unbleached Toilet	2.60 @	3.30
Bleached Toilet	3.94 @	5.26

Paper Towels—

Unbleached	2.10 @	3.35
Bleached	3.30 @	3.70

Manila—

No. 1 Jute	9.00 @	9.25
No. 2 Jute	7.75 @	8.50
No. 1 Wood	4.00 @	5.25
No. 2 Wood	3.50 @	4.00

Fibre Papers—

No. 1 Fibre	4.25 @	5.50
No. 2 Fibre	4.00 @	4.75

(Delivered New York)

News, per ton—		
Roll, contract	41.00 @	—
Sheets	46.00 @	—
Kraft—		
No. 1 Northern	4.12½ @	4.75
Standard	4.00 @	—
Southern	3.87½ @	—
Boards—per ton—		
News	37.50 @	—
Chip	37.50 @	—
Sgl. Mla. Ll. Chip	42.50 @	45.00
Jute Lined Chip	42.50 @	45.00
Kraft Liners	57.50 @	60.00
White Pat. Coated	55.00 @	57.50
Binders Boards	67.00 @	75.00

Mechanical Pulp

(On Dock, Atlantic Ports)

No. 1 Imported—		
Moist	22.00 @	23.00
Dry	22.00 @	23.00
(F. o. b. Mill)		
No. 1 Domestic and Canadian	18.00 @	24.00

Chemical Pulp

(On Dock, Atlantic, Gulf and West Coast Ports)

Bleached Sulphite (Domestic and Foreign)—		
Division 1	2.60 @	2.90
Division 2	2.55 @	—*
Division 3	2.50 @	—*
Prime Qualities—		
Class 1. All Prime Easy Bleaching	2.05 @	—*
Other Than Easy Bleaching—		
Class 2. Higher than Standard	2.00 @	—*
Class 3. Standard	1.95 @	—*
Class 4. Lower than Standard	1.90 @	—*
(On Dock, Atlantic Ports)		
Kraft No. 1	1.80 @	1.95
Kraft No. 2	1.65 @	1.75
(F. o. b. Pulp Mill)		
Kraft Domestic	1.75 @	1.80
(Delivered)		
Soda Bleached	2.60 @	—

* Add 60 Cents per short ton, dock charges, for Albany; $2.00 for Lake Ports East and $3.00 for Lake Ports West of Mackinac Straits.

Domestic Rags

New Rags

(Prices to Mill f. o. b. N. Y.)

Shirt Cuttings—		
New White, No. 1	8.00 @	8.15
Silesias No. 1	5.50 @	5.75
New Unbleached	8.25 @	8.50
New Soft Blacks	3.75 @	4.00
Blue Overall	5.75 @	6.00
Fancy	3.25 @	3.50
Washables	2.25 @	2.50
Mixed Khaki Cuttings	3.25 @	3.50
O. D. Khaki Cuttings	4.00 @	4.25
Men's Corduroy	2.00 @	2.25
New Mixed Blacks	2.75 @	3.00

Old Rags

White, No. 1—		
Repacked	3.00 @	3.50
Miscellaneous	2.75 @	3.25
White, No. 2—		
Repacked	1.75 @	2.25
Miscellaneous	1.50 @	1.75
Thirds and Blues—		
Repacked	1.75 @	1.85
Miscellaneous	1.45 @	1.55
Roofing Rags—		
No. 1	2.00 @	2.10
No. 2	1.80 @	1.90
No. 3 (bagging)	1.50 @	1.60
No. 4	1.20 @	1.30
No. 5A	1.15 @	1.25

Foreign Rags

New Rags

New Dark Cuttings	2.00 @	2.25
New Mixed Cuttings	1.80 @	1.90
New Light Silesias	3.75 @	4.00
Light Flannelettes	4.25 @	4.50
New White Cuttings	6.50 @	7.00
New Light Oxfords	3.25 @	3.50
New Light Prints	2.75 @	3.00

Old Rags

No. 1 White Linens	7.50 @	8.00
No. 2 White Linens	6.50 @	7.00
No. 3 White Linens	4.50 @	5.00
No. 4 White Linens	2.25 @	2.50
No. 1 White Cotton	4.25 @	4.75
No. 2 White Cotton	3.25 @	3.75
No. 3 White Cotton	2.50 @	2.75
No. 4 White Cotton	1.90 @	2.15
Extra Light Prints	2.00 @	2.25
Ord. Light Prints	1.75 @	1.85
Med. Light Prints	1.55 @	1.65
Dutch Blue Cottons	2.00 @	2.25
French Blue Linens	2.30 @	2.40
German Blue Linens	2.15 @	2.25
German Blue Cottons	1.70 @	1.80
Checks and Blues	1.70 @	1.80
Linsey Garments	1.95 @	2.05
Dark Cottons	2.00 @	2.25
Old Shopperies	1.00 @	1.05
New Shopperies	1.25 @	1.35
French Blues	2.00 @	2.25

Old Rope and Bagging

(Prices to Mill f. o. b. N. Y.)

Gunny No. 1—		
Foreign	2.20 @	2.25
Domestic	2.25 @	2.35
Wool Tares, light	1.75 @	2.00
Wool Tares, heavy	2.25 @	2.35
Bright Bagging	1.75 @	1.80
Manila Rope—		
Foreign	2.40 @	2.50
Domestic	2.50 @	2.75
Mixed Strings	.85 @	1.00
New Burlap Cut	2.00 @	2.25
Hessian Jute Threads—		
Foreign	2.60 @	2.75
Domestic	2.80 @	3.00

Old Waste Papers

(F. o. b. New York)

Shavings—		
White Envelope Cuttings	2.65 @	2.75
Ordinary Hard White No. 1	2.25 @	2.35
Hard White No. 2	2.10 @	2.20
Soft White No. 1	2.05 @	2.15
Flat Stock—		
Stitchless	.65 @	.75
Over issue Mag	.65 @	.75
Solid Flat Book	.55 @	.60
Crumpled No. 1	.35 @	.40
Solid Book Ledger	1.50 @	1.65
Ledger Stock	.85 @	.90
New B. B. Chips	.30 @	.35
Manilas—		
New Env. Cut	1.75 @	1.85
New Cuttings	1.35 @	1.45
Bogus Wrapper	.40 @	.50
Old Kraft Machine—		
Compressed bales	1.25 @	1.35
News—		
No. 1 White News	1.45 @	1.50
Strictly Overissue	.50 @	.55
Strictly Folded	.40 @	.45
No. 1 Mixed Paper	.32½ @	.37½

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CELLULOSEFABRIKS A.-G.
Bratislava, Czecho-Slovakei
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Twines

(F. o. b. Mill)

(Soft Fibre)

Coarse Polished—

India	.13¾	@	.15¾
Belg. White Hemp	.14¼	@	.17¾
India Compress	.13¾	@	.14¼

Fine Polished—

Fine India	.21½	@	.23½
Special	.19½	@	.21½

Unpolished—

Box	.12	@	.12½
Paper Makers	.09	@	.13½
Tube Rope	.10	@	.15½
Wall Paper	.11	@	.14½
Wrapping	.15½	@	.21
Special	.15	@	.15½
Soft Fiber Rope	.12½	@	.12¾

(Hard Fibre)

Bond	.12	@	.20½
Anchor	.11½	@	.13
Manila	.21	@	.2[illegible]

CHICAGO

Paper

(F. o. b. Mill)

Rag Bond	.12	@	.40
Water Marked Sulphite Bond	.06¾	@	.11
Sulphite Bond	.05½	@	.07¼
Superfine Writing	.18	@	.24
No. 1 M. F. Book	.06½	@	.07¼
No. 2 M. F. Book	.05¼	@	.06¼
No. 1 S.&S.C. Book	.06¾	@	.07¾
No. 2 S.&S.C. Book	.05¾	@	.06½
Coated Book	.07	@	.12
Coated Label	.07	@	.08½
No. 1 Manilla	.04¾	@	.05¾
No. 1 Fibre	.04¾	@	.05¼
No. 2 Manilla	.04¼	@	.04¾
Butcher's Manila	.03¼	@	.03¾
No. 1 Kraft	4.75	@	5.00
Southern Kraft	3.88	@	4.25
No. 2 Kraft	3.88	@	4.25
Wood Tag Boards	.04¼	@	.06¼
Sulphite Screenings	.03	@	.03¼
Manila Tissue	.05¾	@	.07
White Tissue	.07	@	.09

(Delivered Central Territory)

News, per ton—			
Rolls, contract	42.00	@	—
Sheets, open	47.00	@	—
Boards, per ton—			
Plain Chip	46.50	@	—
Solid News	50.00	@	—
Manila Lined Chip	55.00	@	—
Patent Coated	65.00	@	—
Container Lined—			
85 Test, per 1000 sq. ft.			1.70
100 Test, per 1000 sq. ft.			1.85

Old Papers

(F. o. b. Chicago)

Shavings—

No. 1 White Envelope Cuttings	1.70	@	2.00
No. 1 Hard White	1.40	@	1.65
No. 1 Soft White	1.25	@	1.50
Ledger & Writings	.70	@	.80
Solid Books	.60	@	.70
Blanks	1.00	@	1.05
Krafts	.80	@	.90
New Kraft Cuts	1.20	@	1.30
Manila Env. Cuts	1.25	@	1.30
Ex. No. 1 Manila	.90	@	1.00
Print Manila	.40	@	.50
Overissue News	.40	@	.45

Old Newspapers—

No. 1	.30	@	.35
No. 1 Mixed Paper	.25	@	.30

Roofing Stocks—

No. 1	30.00	@	—
No. 2	28.00	@	—

PHILADELPHIA

Paper

Rag Content Bond & Ledgers—

Delivered Zone 1

	Bonds	Ledgers
100% Rag Ext. No. 1	.36	.37
100% Rag	.28	.29
75% Rag	.21	.22
65% Rag	.18	.19
50% Rag	.15	.16
25% Rag	.12½	.13½

Sulphite Bond & Ledgers—

Delivered Zone 1

	Bonds	Ledgers
No. 1 Sulphite	7.75	8.75
No. 2 Sulphite	6.75	7.75
No. 3 Sulphite	6.00	7.00
No. 4 Sulphite	5.50	6.50

F.o.b. Mill

Book, M. F.	5.00	@	—
Book, S. S. & C.	5.25	@	—
Book, Coated	6.15	@	—
Coated Lithograph	6.15	@	—
No. 1 Jute Manila	10.50	@	—
Manila Sul., No. 1	6.75	@	—
Manila No. 2	4.25	@	—
No. 1 Kraft	6.00	@	—
Southern Kraft	5.00	@	—
News Print Rolls	40.00	@	—
Straw Board	40.00	@	45.00
News Board	40.00	@	—
Chip Board	37.50	@	—
Wood Pulp Board	70.00	@	85.00
Binder Boards—			
No. 1, per ton	75.00	@	80.00
No. 2, per ton	70.00	@	75.00
Carload lots	65.00	@	70.00
Tarred Felts—			
Regular	52.25	@	54.25
Slaters (per roll)	.84	@	.94

Domestic Rags (New)

(Price to Mill, f. o. b. Phila.)

Shirt Cuttings—			
New White, No. 1	.07	@	.07½
New White, No. 2	.05	@	.05½
Light Silesias	.04½	@	.05½
Silesias, No. 1	.04	@	.04½
Black Silesias, soft	.03	@	—
New Unbleached	.06½	@	—
Washable, No. 1	.02	@	.02½
Blue Overall	.05	@	.05½
Cottons—According to grades—			
Washable, No. 2	.02½	@	.04½
New Blue	.02	@	.02½
Fancy	.02	@	.02½
New Black Soft	.04¼	@	.04¾
New Light Seconds	.04	@	.04¼
New Dark Seconds	1.50	@	—
Khaki Cuttings—			
No. 1 O. D.	.04	@	.04½
No. 2 Mixed	.03½	@	.04½
Corduroy	.02	@	.02¼
New Canvas	.04	@	.04½
New Black Mixed	.02¼	@	.02½

Domestic Rags (Old)

White No. 1—			
Repacked	4.00	@	4.50
Miscellaneous	3.00	@	3.50
Thirds and Blues—			
Miscellaneous	1.75	@	2.00
Repacked	2.50	@	2.75
Black Stockings (Export)	4.50	@	5.00
Roofing Stock—			
Foreign No. 1	2.00	@	2.10

Bagging

(F. o. b. Phila.)

Gunny, No. 1—			
Foreign	2.00	@	—
Domestic	2.25	@	—
Manila Rope	2.75	@	3.00
Sisal Rope	1.75	@	2.00
Mixed Rope	1.00	@	1.10
Scrap Burlaps—			
No. 1	2.00	@	2.50
No. 2	.90	@	1.00
Wool Tares, heavy	3.00	@	3.25
Mixed Strings	1.00	@	1.10
No. 1 New Light Burlap	3.00	@	3.50
New Burlap Cuttings	2.50	@	2.75

Old Papers

(F. o. b. Phila.)

Shavings—			
No. 1 Hard White	2.30	@	2.40
No. 2 Hard White	2.10	@	2.20
No. 1 Soft White	1.80	@	1.85
No. 2 Soft White	1.40	@	1.45
No. 1 Mixed	—	@	.85
Solid Ledger Stock	1.50	@	1.60
Ledger Stock, white	1.15	@	1.20
Ledger Stock, colored	.85	@	.90
No. 1 Books, heavy	.65	@	.70
Manila Cuttings	1.50	@	1.60
Print Manila	.50	@	.60
Container Manila	.50	@	.60
Kraft Paper	1.10	@	1.20
No. 1 Mixed Paper	.35	@	.40
Straw Board Chip	.40	@	—
Binders Board Chip	.40	@	—
Corrugated Board	.60	@	.65
Overissue News	.60	@	—
Old Newspapers	.40	@	—

BOSTON

Paper

Rag Content Bond & Ledgers—

Delivered Zone 1

	Bonds	Ledgers
100% Rag Ext. No. 1	.36	.37
100% Rag	.28	.29
75% Rag	.21	.22
65% Rag	.18	.19
50% Rag	.15	.16
25% Rag	.12½	.13½

Sulphite Bond & Ledgers—

Delivered Zone 1

	Bonds	Ledgers
No. 1 Sulphite	7.75	8.75
No. 2 Sulphite	6.75	7.75
No. 3 Sulphite	6.00	7.00
No. 4 Sulphite	5.50	6.50

F.o.b. Mill

Book, Super	.06	@	.09
Book, M. F.	.05½	@	.08½
Book, Coated	.08½	@	.18
Coated Litho	.09	@	.12
Jute Manila No. 1	.11	@	.13
Manila, Sul. No. 1	.04¾	@	.06¼
Manila, Sul. No. 2	.03¾	@	.04½
No. 1 Kraft	.04¾	@	.05
No. 2 Kraft	.04¼	@	.04¾

(F. o. b. Boston)

Southern Kraft	.03¾	@	.04¾

(F. o. b. destination in carload lots, f. o. b. mill in less than carload lots)

(Delivered New England points)

News Print Rolls	39.50	@	—
Straw Board, rolls	.009	@	35.00
Filled News Board	40.00	@	45.00
Chip Board	37.50	@	40.00
Single Manila Lined Chip	47.50	@	52.50
Single White, Patent Coated News Board (Bender)	55.00	@	65.00
Wood Pulp Board	70.00	@	75.00
Binder Boards (Standard Grade)	67.00	@	75.00

Old Papers

(F. o. b. Boston)

Shavings—			
No. 1 Hard White	2.00	@	2.20
No. 1 Soft White	1.75	@	1.90
No. 2 Mixed	.75	@	.80
Solid Ledger Books	1.40	@	1.50
Overissue Ledger Stock	1.15	@	1.30
Mixed Ledgers	.85	@	.90
No. 1 Books, heavy	.60	@	.70
No. 1 Books, light	.50	@	.60
Crumpled Stitchless Book Stock	.50	@	.60
Manila Env. Cuttings	1.60	@	1.70
No. 1 Old Manila	.60	@	.65
White Blank News	1.30	@	1.35
No. 1 Kraft	1.20	@	1.30
Mixed Papers	.25	@	.35
Print Manila	.50	@	.60
Container Manilas	.27½	@	—
Old Newspapers	.27½	@	.30
Overissue News	—	@	.40
Box Board Chips	—	@	.25
Corrugated Boxes	.45	@	.50
Kraft corrugated boxes	1.00	@	1.10
Screening Wrappers	.40	@	.45

Bagging

(F. o. b. Boston)

Manila Rope—			
Foreign	2.40	@	2.55
Domestic	2.40	@	2.50
Transmission Rope	1.45	@	1.25
Jute Rope	2.00	@	2.25
Jute Carpet Threads	1.00	@	1.10
Gunny No. 1—			
Foreign	2.00	@	2.20
Domestic	1.90	@	2.00
Bleachery Burlap	4.00	@	4.50
Scrap Burlap—			
Foreign	1.90	@	2.00
Domestic	1.75	@	1.90
Scrap Sisal	2.00	@	2.25
Scrap Sisal for Shredding	2.25	@	2.50
Wool Tares, heavy	2.25	@	2.35
New Burlap Cuttings	2.25	@	2.35
Australian Wool Pouches	3.15	@	3.30
Heavy Baling Bagging	2.50	@	2.75
Paper Mill Bagging	1.75	@	2.00
Bagging No. 2	1.25	@	1.50

Domestic Rags (New)

(F. o. b. Boston)

Shirt Cuttings—			
New Light Prints	.01¾	@	.02
New White No. 1	.08	@	.08¼
New White No. 2	.04	@	.04¾
Silesias No. 1	.05½	@	.06
New Black Silesias	.03½	@	.04
Soft Unbleached	.07¼	@	.07¾
Blue Cheviot	5.25	@	5.50
Fancy	.02½	@	.02¾
Washable	.0165	@	.0170
Cottons—According to grades—			
Blue Overalls	5.50	@	6.00
New Black, soft	.04	@	.04¼
Khaki Cuttings	.04	@	.04¼
O. D. Khaki	.04	@	.04¼
Corduroy	.01¾	@	.02
New Canvas	—	@	.05
B.V.D. Cuttings	—	@	.06¼

Domestic Rags (Old)

(F. o. b. Boston)

Canvas	.04½	@	—
White No. 1—			
Repacked	—	@	2.75
Miscellaneous	2.50	@	2.75
White No. 2—			
Repacked	1.90	@	2.00
Miscellaneous	2.00	@	2.25
Twos and Blues	1.75	@	2.25
Thirds and Blues—			
Repacked	1.37½	@	1.75
Miscellaneous	1.25	@	1.62½
Black Stockings	3.90	@	4.00
Roofing Stock—			
No. 1	2.05	@	2.10
No. 2	1.85	@	1.95
No. 3	1.60	@	1.65

Foreign Rags

(F. o. b. Boston)

Dark Cottons	2.00	@	2.25
New White Shirt Cuttings	6.50	@	6.75
Dutch Blues	2.25	@	2.50
New Checks & Blues	2.50	@	3.00
Old Fustians	1.90	@	2.00
Old Linsey Garments	2.25	@	2.50
New Silesias	4.75	@	5.25

TORONTO

Paper

(F. o. b. Mill)

Bond—			
No. 1 Sulphite	.11	@	—
No. 2 Sulphite	.08¼	@	—
No. 1 Colored	.12	@	—
No. 2 Colored	.09	@	—
Ledgers			
Ledgers, No. 1	.34½	@	—
Ledgers, No. 2	.25½	@	—
Writing	.09	@	.09½
Book—			
No. 1 M. F. (Carloads)	6.50	@	—
No. 2 M. F. (Carloads)	6.00	@	—
No. 3 M. F. (Carloads)	6.00	@	—
No. 1 S. C. (Carloads)	7.00	@	—
No. 2 S. C. (Carloads)	6.50	@	—
No. 3 S. C. (Carloads)	6.50	@	—
No. 1 Coated and Litho	12.00	@	—
No. 2 Coated and Litho	10.50	@	—
No. 3 Coated and Litho	9.50	@	—
Coated tinted	13.00	@	—
Wrapping—delivered—			
Rag Brown	4.75	@	—
White Wrap	3.50	@	—
"B" Manila	4.80	@	—
No. 1 Manila	5.40	@	—
Fiber	5.40	@	—
Kraft, M. F.	5.90	@	—
Kraft, No. 2	5.40	@	—

(F. o. b. Cars Toronto)

News, per ton—			
Rolls (contract)	40.50	@	—
Sheets	45.00	@	—

Pulp

Ground wood	27.00	@	—
Unbleached Sulphite	42.00	@	—
Book (Class 1)	58.00	@	—
Writing (Class 2)	59.00	@	—
Select (Class 3)	60.00	@	—

Old Waste Paper

(In carload lots, f. o. b. Toronto)

Shavings—			
White Env. Cut	2.00	@	2.25
Soft White	1.60	@	1.90
White Blk. News	1.25	@	1.40
Book and Ledger—			
Flat Magazine and Book Stock (old)	.90	@	1.00
Light and Crumpled Book Stock	.80	@	.90
Ledgers and Writings	1.00	@	1.05
Manilas—			
New Manila Cut	1.25	@	1.40
Printed Manilas	.50	@	—
Kraft	1.00	@	1.60
News and Scrap—			
Strictly Overissue	.55	@	—
Strictly Folded	.50	@	—
No. 1 Mixed Paper	.40	@	—

Domestic Rags

(Price to mills, f. o. b. Toronto)

No. 1 White Shirt Cuttings	.07¼	@	.07½
Fancy Shirt Cuttings	.02¼	@	.02½

PAPER TRADE JOURNAL

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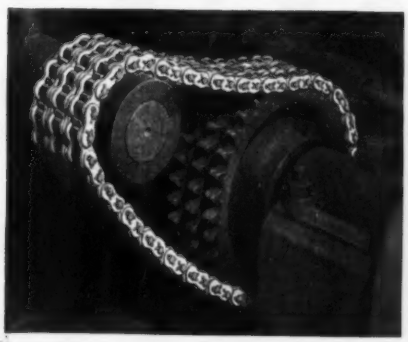
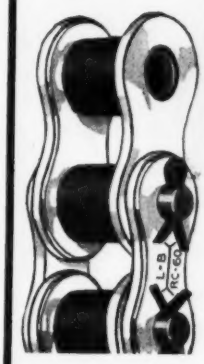
Want and For Sale Advertisements, 52-53

LINK-BELT
SILVERLINK
THE ULTIMATE IN ROLLER CHAIN





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5307

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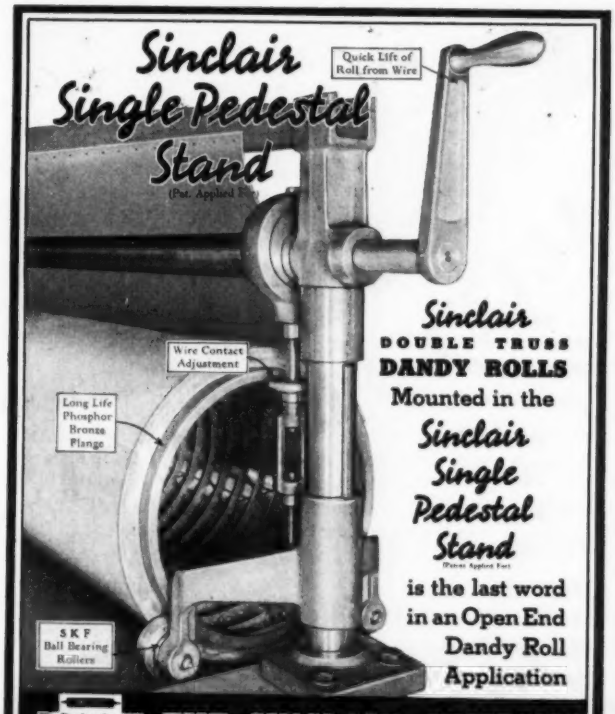

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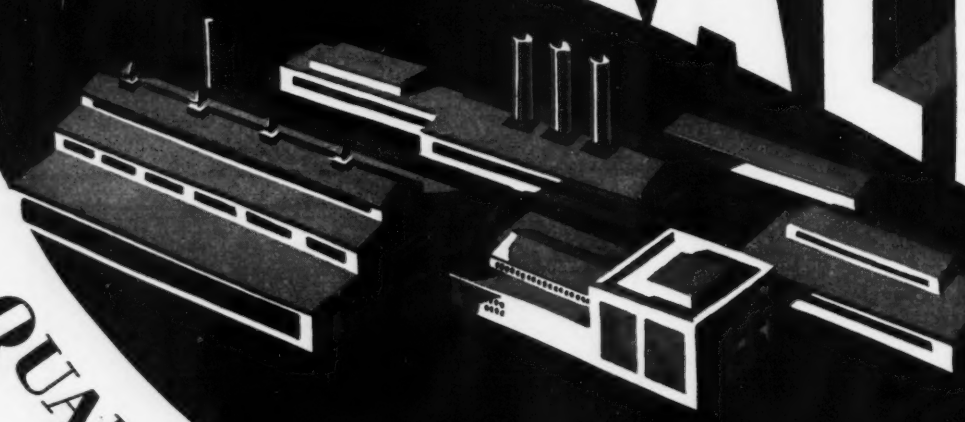

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